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RENT

IN

MODERN ECONOMIC THEORY:

AN ESSAY IN DISTRIBUTION.

BY

ALVIN SAUNDERS JOHNSON, A.M.

NOVEMBER, 1902.

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PREFACE.

It is the belief of the author of the following study that the essential elements of the theory of rent are familiar to all serious students of economics. Present differences in point of view are due, not to ignorance of these elements, but to the fact that authorities disagree as to the proper emphasis which should be laid upon the various aspects of the problem. It is believed that by placing the points at issue in juxtaposition, and by paying due regard both to self-consistency and to relevancy to theoretical needs, it will be possible to approximate a satisfactory view of the problem. No attempt has been made to trace to their original sources the ideas discussed in the following pages. Usually they are the common property of whole schools; and if one author has been cited rather than another, it is because that author seemed to be the best available representative of the idea in question.

That the positive views here advanced are largely based upon the theories of Professor J. B. Clark will, of course, be obvious to every reader. Acknowledgement of indebtedness is further due to Professors E. R. A. Seligman and F. A. Fetter, who have read this study in manuscript and have offered many valuable suggestions both as to form and matter.

ALVIN S. JOHNSON.

Columbia University.

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CHAPTER I.

THE ECONOMIC SURPLUS.

SEC. 1. Economic science, it has been well said, is not studied because of any inherent interest of its own. Natural curiosity may serve as a sufficient reason for the investigation of physical and vital laws; interest in the duties and destinies of man may give to ethical and metaphysical studies an intrinsic value; but divest economics of its bearing upon practical action or ulterior thought, and few would find it worthy of attention. Historically, it was the need for principles of political action that was chiefly responsible for the creation of political economy as a special science; and in the present day the student usually devotes his attention to economics because he wishes to understand the effects, proximate and remote, of taxation and of governmental control of industry, of trade unions and monopolies; or, if his interests are those of the scholar rather than those of the practical man, because he wishes to understand the sociological and political effects of economic laws, or because he desires to throw light upon the historical development of society. In any case economic science cannot be considered a sufficient end in itself.

It follows, accordingly, that the results of economic study must not merely be true, but must have a bearing upon practical or intellectual problems that are recognized to be of importance *per se*. The distinctions and classifications of the economist must submit to the two-fold test of truth and relevancy. And as the progress of events and of science brings new problems into the foreground, the old analyses may lose their significance,

although they may remain quite true. The work of economic theory, therefore, is never done. Each economic period will demand new analyses, based upon a point of view which is selected by the needs of the time.

It is the purpose of this essay to review the position of the rent of land in modern theory, to consider its nature viewed from the standpoint of economic science of to-day, and to discuss its relations with other economic incomes. It has long been customary with economists to treat rent not as an income *sui generis*, but as one species under a wide genus. Rent has been classed now with one kind of incomes, now with another, as one characteristic or another has seemed to be of vital importance. Economists have not, however, always recognized that it is with reference to qualities which they have themselves selected as relevant that they classify rent with profits or interest or monopoly return. Most frequently they imagine that their classifications are based upon the essential nature of the phenomena under investigation. Reflection will, however, show that if such a classification is possible it is of no importance in economics, since phenomena which are similar in most of their relations may be widely dissimilar in the relations which may properly be called economic. But while economic phenomena are naturally grouped according to characteristics which the economist selects, it is not true that economic analyses may be arbitrary. There are certain problems at the present time which will be recognized to be fundamental in economics. It is with reference to these problems, as the writer conceives them, that the point of view of this essay has been chosen. Criticism of other classifications will accordingly be based not only upon their inherent logic, but also upon their relevancy to the problems of to-day. In adopting such a basis for

criticism, injustice is necessarily done to the systems of earlier periods, but not to their survivals in modern economics.

SEC. 2. The rent of land is usually treated as a species of the genus "surplus income." To show that any form of income is a surplus has been regarded as equivalent to demonstrating its kinship with rent. But rent is a category of economic theory, while surplus income may be a category of ethics, politics or sociology, as well as of economics. What is surplus income from the point of view of ethics or sociology may not be a surplus from the point of view of modern economic theory. It is, therefore, not legitimate for the purposes of economic classification to group together all incomes that from one point of view or another may be regarded as surplus. The economic surplus must consist in a part of the social income which exerts upon the central phenomena of economic science an influence differing from that of the incomes classed as non-surplus. It must possess economic potency if it is not to fall outside of the domain of economics; it must affect phenomena that are recognized as secondary, from the economic point of view, else the term "surplus" is a misnomer.

The classification of the social income into surplus and non-surplus is as old as economic theory, although early writers did not usually treat it as one of fundamental importance, as do many modern writers. But there has been little uniformity in the determination of the concrete forms of income that constitute the surplus. The history of economic science presents a series of surplus funds no two of which cover identically the same elements. This is what one would expect, since those "funds" have been constructed with reference to widely different central problems.

SEC. 3. The first demand upon the resources of a community is the covering of the barest needs of those who procure from nature wealth in its raw form. If nothing is left after this primary need has been met, it is evident that highly elaborative industry, organized government, art, science, and other forms of cultural activity are practically impossible. If, however, an excess of wealth above such primary costs remains, one of the most essential conditions of higher social activities is present.

A surplus of this order was the *produit net* of the Physiocrats. The needs of the agricultural laborer could be met by a portion of the produce of the soil, while such wealth as exceeded the demands of agricultural labor could be employed for the support of trades and arts and government. The extent of the surplus measured a community's potentialities for cultural development.

> It is these primary riches, continually renewed, which support all the other states of the realm, which give activity to all the other professions, which cause commerce to flourish, which favor population, which animate industry, which create the prosperity of a nation.[1]

What the Physiocrats were seeking to establish was a material basis for the complex of phenomena that distinguish a civilized and refined community from a barbarous one. The *produit net* had no importance apart from its political and social effects. Again and again we are reminded that it is not really wealth until a population has arisen to demand it.[2] It is of no significance until it has transmuted itself, so to speak, into the activities of the artisan and trading and professional classes. The transformation of surplus revenue into

[1] Quesnay, Grains, printed in Physiocrates, ed. E. Daire, vol. 1, p. 272.

[2] Quesnay, Grains, p. 299.

higher social forms is explained according to the somewhat naïve common sense of the time.

> The assemblage of a number of rich proprietors who reside in a single place is sufficient to form what is called a city, where merchants, manufacturers, artisans, workingmen and domestics come together in proportion to the revenues which the proprietors spend there. In each case, the magnitude of a city is naturally proportioned to the number of proprietors of lands, or rather, the produce of the lands which belong to them. The capital city is formed in the same way as a city of the provinces, with this difference, that the great proprietors of the whole state reside in the capital.[1]

Two assumptions are manifestly necessary in order to give definiteness and meaning to the surplus thus conceived. It is necessary to assume first, that the wages of labor are fixed at the minimum of subsistence; and secondly, that population will automatically increase until the whole product of the soil is consumed by laborers engaged either in extractive or elaborative industry. Under these assumptions the *produit net* would be a fair measure of the labor force at the command of society, and this, in a society only slightly capitalistic, would be an approximate measure of its productive powers.

In the later writings of the Économistes we find both assumptions developing: Turgot states explicitly that the laborer normally receives his bare living; and Malthus, who in his doctrine of rent may be classed with the Physiocrats, expresses with clearness the assumption that the surplus tends to create its own consumers, an artisan class that has to purchase it with their toil.

> Thus the fertility of the land gives the power of yielding a surplus, a rent, by yielding a surplus quantity of necessaries beyond the wants of the cultivators; and the peculiar quality belonging to the necessaries of life, when properly distributed, tends to strongly and constantly give a value to this surplus by raising up a population to demand it.[2]

[1] Cantillon, Essai sur la nature du commerce, p. 5, 6.

[2] Malthus, Principles of political economy, Boston, 1821, p. 113.

We are not here concerned with the imperfect theory of distribution which assigned to the landlord the entire *produit net*, nor with the fantastic theory of production which imputed it wholly to the soil, or, sometimes, to agricultural labor. What is of interest is the extent of the surplus fund and the significance ascribed to it. The assumptions upon which its definitions are based are sufficiently unreal as applied to modern economic life; but before the development of capitalistic society they were, perhaps, approximately correct. When habits of consumption were fixed and methods of production unchanging, the social development of each community was indeed closely connected with a distinguishable surplus.

SEC. 4. The Physiocrats, then, attempted to establish a physical basis for the growth of that part of society which distinguishes civilization from barbarism. They sought an explanation for the greatness of states conceived as units. Assuming at the outset, as they did, that the surplus flowed into the hands of the landowner, they did not enter into a discussion of its distribution among smaller units within the state. Yet they recognized the existence of a capitalist class, and admitted that the laborer could save "by parsimony." Thus a part of the surplus above the bare subsistence of labor remained in the possession of other classes besides the landlords. Unconsciously they had introduced a new class of problems, the further development of which was left to the so-called historical materialists.

An increase in social income, distributed to the different classes of a society in proportion to their original incomes, would increase the happiness of the society as a whole and advance it in civilization and culture. It would also increase its power to cope with other societies

in peace and in war. A surplus thus distributed is therefore a factor of great importance in international politics. Increase in social wealth, however, is not likely to result in a universal augmentation of the original incomes of the members of society. Certain individuals and classes will almost inevitably receive more than the average proportion of it. The appearance of a surplus, therefore, will usually create new class distinctions, or emphasize those that already exist. The flow of new income causes one class to gain in power and another to decline. It is a potent factor in state politics, just as the surplus which is conceived of as an acquisition of an entire community is a potent factor in the politics of the world.

It is, however, only upon the assumption of static methods of utilization that a surplus of this nature can at all adequately explain the relative rise and decline of societies or of social classes. A change in the habits of consumption, taking place simultaneously with an increase in wealth, may wholly neutralize its social and political influence. A wealthy state with luxurious habits is not necessarily more fitted to survive than a poorer state whose citizens have simpler tastes. If the development of the personal wants of a class keeps pace with the increase in its resources, it will not necessarily gain either in numbers or strength. Now in the ages preceding the distinctly modern epoch, standards of consumption were for the most part definite. The surplus of food produced was a rough indication of the probable magnitude of the non-agricultural population, and the wealth at the command of a social class was a not inaccurate index of its probable growth in power. In modern society, on the other hand, wants are so complex and subject to such great variations that it would

be hazardous to predict the result of any but the most striking changes in income. While, then, a surplus consisting in mere increase in wealth may, even in modern times, occasion changes in the relative political and social position of states and of classes, so many other factors enter into the problem that it is hardly safe to attempt to explain concrete phenomena by the emergence of surplus. The distinction between such surplus and non-surplus parts of income is of great importance in the discussion of certain historical problems, but it is questionable whether it throws any light upon problems of the present day.

SEC. 5. As a rule the production of goods entails the loss of a certain amount of vital energy, and the consumption of the goods produced restores energy to the human organism. Man has frequently existed in environments which afforded him subsistence only in return for the expenditure of all the energy which he possessed. In such circumstances a change in activities which would require greater exertion would be injurious, and any change in the direction of energy, even though it did not mean an increase in its absolute amount, would be attended with serious risks, and would naturally be avoided. Where, on the other hand, the environment has been so favorable that the consumption of the goods created by a day's labor has yielded a quantity of energy more than sufficient to produce an equal amount of goods, variations in the forms of activity have been possible. Where under such circumstances a competition for existence took place among individuals or groups of individuals, a law of survival may have forced the surplus of energy to find a vent in new forms of activity. The presence of surplus energy thus appears as a possible basis for variation in activity, and

under the pressure of competition for life may become a real cause of economic and social progress. Such is the part that is assigned to surplus energy in Professor Patten's theory of progress,[1] in which each adaptation to the environment sets free new surplus energy which automatically transmutes itself into progress.

Whether or not one accepts Professor Patten's theory as a satisfactory account of progress, one can hardly deny that it points out a factor which deserves consideration from all who seek for an explanation of the development of a dynamic society out of apparently changeless barbarism. There is accordingly a set of problems which justifies the distinction between the energy which is necessary to conserve human life in its existing conditions and the energy which is free and available for new uses, and which justifies the parallel distinction between the parts of income which may be regarded as the objective forms of such classes of energy.

The three forms of surplus that have been described may indeed be properly denominated surpluses. Those parts of income—or income transmuted into energy—which account for continued, though unchanging, conditions of life represent the non-surplus. Those parts of income that explain change or progress form the surplus fund. If it is indeed the essential function of economics to explain progress or change, political and social, some one of these is rightly termed the economic surplus.

SEC. 6. Much of the pleasure and pain of life results

[1] Theory of prosperity, pp. 186, 187, *et passim*. It is to be observed that in Professor Patten's exposition the first step in progress, from which surplus energy originally results, is mere chance adjustment to the environment. This requires the unnecessary assumption that primitive man actually lived in an environment that barely afforded him subsistence.

from the consumption and production of economic goods. A popular measure of welfare is the net amount of pleasure that results from the entire economic process. It has often been said that the true criterion of economic amelioration is the growth of the surplus of happiness afforded by economic activities. Not increase in power or in wealth or in energy, but increase in the sum of producers' and consumers' rents is the index of progress.[1] One need not accept the growth of surplus satisfaction as an adequate explanation of the meaning of progress, yet it may serve as a working principle in default of a better. The distinction between those satisfactions which are merely sufficient to cover economic discomforts and those which are a net gain to man thus serves to satisfy an intellectual need, and hence requires no further justification.

Psychological science has for a long time protested vehemently against the view which makes economic life a mere balancing of pleasures against pains. The protest has received little attention from economists—probably less than it deserves. Economic conduct consists in a series of options determined by a complex of final causes, of which pleasure and pain may be selected as typical, although they are perhaps not even the most important ones. It would be erroneous, however, to suppose that the adoption of the psychologist's point of view would revolutionize economic theory. Economists are not particularly interested in the analysis of motives. They seek to explain activities, and assume motives merely as a convenient starting point. In every economic act there is a balancing of motives, and what the particular motives may be is to the economist a matter

[1] For a detailed discussion of progress regarded from this point of view see Nicholson, Principles of political economy, iii, book iv.

of small moment. It is convenient to class all motives which make for the performance of an act under a single head, utilities, and all those which dissuade from action under the head of disutilities. Nothing more detailed is needed for the purposes of economic theory.

Whether one chooses to regard economic conduct as the result of a balancing of pleasures and pains, or of utilities and disutilities, defined as above, it is evident that the economic process will usually yield a surplus of pleasure or utility above pain or disutility. Utilities will fall into two classes, those which merely overbalance disutilities, and those which are without any offset. Now it is clear that the former class will account for the totality of economic phenomena. The surplus has no economic potency whatsoever. Whether the motives that lead to an act just outweigh the motives that tend to prevent it, or enormously overbalance them, the act is performed.[1] Whether the pay for the

[1] The objection will be raised that the surplus determines the order of economic choices, and therefore possesses economic potency. If the commodity A yields a surplus of ten and B of five, will not A be chosen first? Certainly. But what is the net economic effect of this order of selection if both are chosen anyway? If it is necessary to choose between the two, A yields a surplus of only five, since the choice involves the surrender of B. The question that then arises has to do with the economic potency of the pure surplus of A, represented here by five. Say that the surplus were reduced to one, would not A still be chosen? So long as A affords the least surplus it will be selected in preference to B. It is the part of surplus above the minimum which determines choice that is here affirmed to be of no importance in the explanation of economic conduct.

A kind critic has suggested that if ten units of labor in producing A yield a surplus, while the eleventh just pays, and one unit of labor in producing B just pays, the surplus really determines the apportionment of labor. We may say that the first unit in the production of A yields a surplus of 10, the second 9, and so on, down to almost nothing. If, however, the surplus on the earlier units of A were reduced to such a mere +, the apportionment would remain the same. It is the extent to which production may be carried on without descending below the minimum ground of choice, and not the amount of the surplus, that determines the apportionment.

first hour of a day's labor merely suffices to insure its performance, or is far more than sufficient to do so, the work is accomplished. Whether the former relation of motives holds through the day, or whether each hour up to the last affords an appreciable surplus, the quantity of economic activity remains the same. It cannot be objected that the laborer would refuse to work under the former conditions, or would work less diligently, for in that case the alleged surplus would not be surplus at all, but would form a part of the sum of utilities necessary to determine the choice to work. The same analysis may be applied to the so-called consumers' surplus. If it is indeed a surplus, it is an economic epiphenomenon. Economic theory has no occasion to take cognizance of its existence.

It may be said that if the first hour of labor yields no surplus, the second hour will probably yield a negative surplus, and will therefore be left undone. That is quite true, but it merely signifies that the presence of a surplus serves as a basis for predicting the continuance of labor. It is not therefore a cause of continued labor. The shape of the utility curve gives us important information as to the value of a commodity under varying conditions of supply and demand, but the surplus included by the utility curve plays no part in economics until it ceases to be a surplus.[1]

[1] The price curve of any commodity is theoretically ascertained by establishing the importance of any unit under all possible relations of supply and want. Say that but one unit is in existence, and the importance of it is one hundred. With the same volume of wants, a hundred-fold increase in the number of units of supply may reduce the importance of any unit to ten. It is usually assumed that the theoretically first unit will then yield a surplus of ninety. If we analyze the nature of this alleged surplus, we find that in the first place it contains an element of actual satisfaction, or rather utility. A hungry man does unquestionably receive more pleasure from the

Sec. 7. At any particular time there is a rate of wages that a workman will consider natural and therefore just. A skilled laborer may believe that three dollars a day is a fair wage. Offer him two and a half and he will probably refuse it with indignation. This does not mean that the reduced wage might not cover all the sacrifice that the performance of labor involves, nor does it mean that the money earned in the last hour does not cover the actual disutilities, consisting in weariness and deprivation of liberty, entailed by that hour of labor. When unemployed he may crave the exercise of his accustomed activity, yet he would feel that to work for the low wages would mean the incurring of a net loss. If, on the other hand, he is offered three dollars and a half for a day's labor, he feels that he is receiving a net gain. Manifestly there is no *a priori* reason why three dollars should be the income selected as the preëminently just one. It is a matter of common experi-

first slice of bread which he consumes than from the last. This surplus, however, is insignificant when compared with the total surplus which figures in the diagrams so popular in economic discussions. The second part of the surplus consists in the "pain obviated" by the presence of food. The first part of the surplus is a fact of consciousness, the second part is something which exists neither in consciousness nor outside of it. It is an idea with no foundation in reality.

Hobson, Economics of distribution, p. 41 *et seq.*, has pointed out the true nature of this curious "surplus." Deprivation of food is the destruction of human life; therefore when the supply of food is threatened the whole worth of life objectifies itself momentarily in the possession of food. The control of the bare means of existence represents the utility of all that one has or ever hopes to have. To assign the utility of all of the goods of life to each one of the necessaries of life is so obviously fallacious that it is astonishing that it has ever been done outside of the popular rhyme that ascribes the loss of horse and rider and battle "all to the want of a horse shoe nail." The subjective surplus, described in the only legitimate way as an actual surplus of satisfaction, does not even give us information with regard to the price curve. That it exists is a ground for optimistic reflections as to human destiny, but it seems to have no further significance in economics.

ence that the standard of just payments varies from age to age and from place to place. The coolie no doubt has his ideas of what is fair in wages, just as the skilled mechanic of America has his. The standards, we can readily see, are based upon experience. What a man has been accustomed to have, and what he sees those whom he regards as of his kind receiving, determines what he will feel should be his in the present.

There are likewise rates of interest that are conceived to be just, and rates that the natural man, at any rate, would pronounce unjust. The same thing is true of prices. These standards, like the standards of just wages, are indisputably the result of experience of what has been or of what is elsewhere the case.

It is possible to divide actual incomes into two parts, one of which corresponds with such standards, while the other measures the variation, positive or negative, from them. The same classification will hold for prices, since prices are merely undistributed incomes. Now it is clear that the first part of income, if isolated, would tend to perpetuate the kinds and volume of the activities which produced it. The second part, whether positive or negative, would lead to a change in such activities. The laborer who feels that he is not treated fairly as compared with others of his kind, who believes that his income is diminished by the existence of negative surplus, will seek to put himself in a position where he may secure greater advantages. He may be personally unable to do so, but his active discontent will serve to urge others who are in a like unfavorable situation, but who are not so specialized that they are unable to change their place in the economic organism, to seek the opportunities that more favored workers possess. If the entire class is degraded, and movement is impossible,

there are still likely to be influences at work lessening the efficiency of laborers, and cutting down their numbers. A positive surplus has a similar set of effects, but in the opposite direction.

A surplus of this kind is an evidence of a dynamic change that has taken place. The existence of standards points to the fact that within a certain limited field incomes have been static. A perpetually changing rate could afford no expectation as to the future. Violation of standards shows that a change in the economic situation of the classes who hold standards of income has taken place. But the existence of the surplus has a more important significance for economics than this. It indicates that further dynamic movements must take place. Industry must be rearranged until the surplus annihilates itself in the creation of new standards.[1]

SEC. 8. It is a well recognized fact that the productivity of any economic agent is conditioned both by its own inherent qualities and by its quantitative relations with complementary agents. The productivity of a

[1] The writer is aware of the fact that the term "standard" as employed in this section violates, to a certain extent, established usage. By "standard" incomes we usually mean those which would exist if industry were suddenly to obey the laws of free competition The term is here used to designate an income which has been established long enough to have become a fixed datum in the social consciousness. If the incomes of all laborers were suddenly to conform to productivity, large numbers of laborers would at first be influenced exactly as though they found themselves in a specially favored environment. Instead of rendering society static, the change would render it intensely dynamic.. When, however, the laborers have become accustomed to their new incomes, and look upon them as a matter of course, the dynamic influence of the new order becomes unimportant. Income which is socially regarded as a surplus, even though from the point of view of pure theory it is not a surplus, exerts the dynamic influence of a surplus income. In seeking for a distinction between incomes which account for change and incomes which account for persistence, it appears to be best to define the latter as incomes which are socially regarded as normal.

given agent will increase or decline with the increase or diminution in the quantity of complementary agency combined with it in production. If we assume the worst possible economic position for labor, its economic product will be zero. It will be a "free good," and the entire return which it coöperates in producing will be imputable to the other factors in production. If the quantitative relations are varied, the share of labor emerges and increases, while that of the other factors diminishes. When such changes in the relations of the factors of production actually take place, the resulting increase in income for the favored factor, and decline for the factors which are prejudiced, are at first felt to be surpluses, positive and negative, similar to the surpluses discussed in the last section. They set in motion secondary dynamic forces opposite in direction to the forces which created them. If the secondary force is less powerful than the primary one, it spends itself before it can restore the former quantitative relations, and new standards for the incomes affected are established. When, for example, capital increases relatively to labor, the immediate effect is to create higher wages and lower interest. A positive surplus appears in wages, a negative surplus in interest; and the effect of the existence of such surpluses is a further dynamic change. Labor will probably increase in volume, while the rate of saving will be somewhat diminished. These effects need not, however, be sufficient to neutralize the effects of the original increase of capital. After the second set of dynamic forces have exhausted their influence, there may be a net gain to labor and a net loss to capital.[1]

[1] As will readily be seen, this is essentially the surplus which appears in Professor Clark's discussion of static incomes. For the sake of simplicity Professor Clark has abstracted from the effects of

If we wish to explain consistently the existence in the present of the standards that are so important in economic life, we can but begin by assuming a time when each concrete income was felt to be a surplus. That surplus, unneutralized by dynamic results, was first crystalized into a standard; and that standard has received a succession of accretions, as the dynamic forces which create surplus income have exceeded in power the dynamic forces which surplus income itself creates. Standard or static incomes thus resolve themselves into series of surpluses which we may term static, not from their causes but from their freedom from dynamic results.

SEC. 9. It is not claimed that the foregoing classification of surplus funds exhausts the list that economic writings offer. In current theory, however, when an income is classed as surplus, it is usually from one of the points of view which have been enumerated. It is here maintained that for the purposes of economic classification all are not equally significant. Economic science exceeds its domain when it creates classifications that have no immediate bearing upon its own central problems. What those problems will be in the future we have no means of knowing, but in the present economic interest unquestionably centers in the problems of value and distribution in a state of society in which competition rules. Current theory seeks to explain the activities which result in the establishment of standards, and those which cause the standards to change. A present income reacts upon future economic activity. Some in-

the secondary dynamic influences—not overlooked them, as some of the critics of "The distribution of wealth" have supposed. In order to escape a similar misunderstanding, it is here assumed that the standards which may historically be analyzed into surpluses result from the *net* force which remains active after opposing forces have been neutralized.

comes tend to maintain themselves unchanged; others possess a power to induce change, a power which by its own nature must disappear, leaving behind it a permanent income which assimilates itself to the class of standard incomes, tending in like manner to perpetuate itself. The phenomena of standards, of economic persistence, are manifestly primary in a theoretical sense; the phenomena of change, though accounting genetically for the existence of standards, are at any given point of time secondary. Accordingly, to classify as surplus the incomes which at a given time promote change meets the claims of economic logic. The dynamic surplus is the economic surplus *par excellence.*

Normal wages may be taken as a type of standard incomes, and pure profit, or at least certain elements in pure profit, as typical of economic surplus. Where are we to place the rent of land? Does it develop standards which tend to perpetuate themselves, or does it tend to disappear? A satisfactory answer to this question, it is here maintained, would sufficiently determine the position of rent in economic theory. It would decide whether rent is to be classed with wages and interest, or with profits and monopoly return. The conception of rent is, however, far from clear, and its economic relations are the subject of vigorous controversy. It will, therefore, be necessary to define what is here meant by the term rent, and to examine the theoretical validity of the long series of distinctions that have been drawn between rent on the one hand and wages and interest on the other, as well as the significance of the analogies that have led economists to regard rent as a species of profit or of monopoly gain.

CHAPTER II.

LAND AS AN INDEPENDENT FACTOR IN PRODUCTION.

SEC. 10. Of the concrete forms of income that have usually been classed as surplus, the rent of land was the earliest to be defined; and so prominent a position has been given to it that the terms "rent" and "surplus" have come to be used interchangeably. If a form of income appears to be a surplus, it is at once treated as a kind of rent; if it presents some of the peculiarities of rent, it is forthwith christened surplus. If rent is regarded as characteristically differential, all incomes that from one point of view or another are differential are called surpluses. If surplus income is defined as residual, all residual incomes are termed rents. It is no wonder, then, that practically every part of the income of society has been classified as rent by one economist or another, and that two of the foremost thinkers of modern economics, Professor Clark and Professor Patten, have—though for widely different reasons—concluded that rent is merely one aspect of an income which from other points of view bears another name.

It is a commonplace of historical economics that land was first given the rank of a factor in production coördinate with labor and capital for the simple reason that in England, the home of classical political economy, the landlords formed a social class distinct from the capitalists and laborers.[1] Land, it is said, is therefore merely an historical category, significant only in a society such as that of England in the early nineteenth century. We may admit that in a country in which all

[1] Held, Zwei Bücher zur socialen Geschichte Englands, 161.

classes share in greater or less degree the benefits of landownership, theorists would not have been so likely to perceive, or at any rate to emphasize, the differences between land and other property which like it produces a permanent income. This does not mean, however, that land, by whatever characteristics it is defined, is to be regarded as a distinct source of income only where landlords are a sharply defined social class. The history of science furnishes numerous examples of truths which remained unknown until the examination of phenomena of a transitory nature drew attention to them. They do not necessarily become untrue or unimportant when the particular need to which they owe their introduction to thought has passed away. When the recipients of the income from land constitute a special class in society, the laws which govern the progress or decline of rent have an additional political and social significance, since such progress or decline must necessarily affect the social constitution.[1] But class problems are beyond the bounds of economics proper, which is at present primarily concerned with the laws governing the production and distribution of wealth, rather than with the more remote sociological effects of such production and distribution.

It will be readily admitted that if land can be distinguished from artificial productive goods by characteristics that are of true economic significance, the rent of land should be treated as a distinct form of income. Any category consists of a group of phenomena which are due to the same general causes, or are affected, in

[1] Professor Patten regards the category of ground rent as irrelevant to a study of the economic laws which prevail in a society like that of modern America (Theory of prosperity, p. 5). But the problems which Professor Patten endeavors to solve would at present be called sociological rather than economic.

the main, by the same forces, or which, if they possess causal efficiency, are similar in those effects which are selected as of primary importance. No one questions the validity of a distinction between labor and capital, and the reason is simply that the two factors naturally contrast themselves. Only extremely metaphysical economists are compelled to rely upon class distinctions to mark off the one from the other. Some writers have indeed classified as interest certain parts of the income of laborers; as, for example, the reward for acquired skill. Origin in abstinence they assume to be the distinguishing characteristic of capital, and acquired skill the result of a sacrifice of present enjoyment for the sake of future gain. There are, however, other facts besides origin that must be taken into account in the establishing of economic categories. Does an increase in capital diminish the return to acquired skill, or is it rather an increase in population that cuts down the income of skilled laborers? Does an increase in skilled labor lower or raise the rate of interest? It appears to be reasonable to hold that skilled labor is subject to the same dynamic influences as unskilled labor, not to the influences which affect capital. It is best, therefore, for the purposes of economic theory to restrict rather than to extend the conception "personal capital," and to regard all labor as contrasted with capital. The characteristics which were at first chosen to distinguish land from capital were unquestionably inadequate for the purpose. There may, however, remain good reason why it is theoretically justifiable to treat land as an independent factor in production.

SEC. 11. Early political economy found no difficulty in distinguishing between the several factors in production. Adam Smith and his immediate followers usually

dealt with types that were so chosen as to contrast strongly, not with classifications which were designed to include all phenomena that should logically be included. Labor was represented by the manual worker who gave shape to commodities at the expense of fatigue and pain. Capital was a stock of producers' goods which had been endowed with their usefulness by human agency. "Land" meant a field or meadow which had suffered little transformation beyond the slight changes incident to the growing and gathering of its produce. Toil, goods created by toil, and goods freely given by nature, —these were three perfectly definite categories. Adam Smith, indeed, marred the clearness of this classification by including under land all agricultural improvements. But even where much labor had been spent on improvement, land appeared to be quite distinct from instruments created by labor.

// As soon as the work of establishing thoroughgoing classifications was undertaken, it became evident that many other kinds of producers' goods were as truly the free gifts of nature as was land. Hence it came to be the fashion to substitute the term "natural agents" for land. We may take Say and Senior as representatives of this tendency:

> Under the term "the Agents offered to us by nature," or, to use a shorter expression, "Natural Agents", we include every productive agent so far as it does not derive its powers from the act of man.[1]

At the same time that the term "land" or "natural agents" was applied to a constantly increasing group of objects, a tendency manifested itself to withdraw from the category of land elements in its productivity which are due to human agency.

[1] Senior, Political economy, p. 58.

A hot house for the raising of exotic plants, a meadow fertilized by judicious irrigation, owe the greater part of their productive powers to works and erections, the effect of antecedent production, which form a part of the capital devoted to the furtherance of actual and present production. The same may be said of land newly cleared and brought into cultivation; of farm-buildings; of enclosures; and of all other permanent ameliorations of a landed estate. These values are items of capital, though it be no longer possible to sever them from the soil they are attached to.[1]

A hothouse or an irrigation plant may, in thought at least, be separated from the land to which it lends productivity. But when a field is cleared of stones, there is no material thing, apart from the land itself, which can be called the product of labor. Such land is a material object to which utilities have been added by human exertion. Nothing more, however, can be said of any of the so-called products of labor. Why should one say that labor produces a brick, but merely adds intangible utilities to land? From an economic point of view as radical a change has taken place in the land which has been reclaimed from bog or jungle as in the iron which has been won from the ore. The terrace gardens of Europe owe their usefulness to toil; they are the product of labor, if any commodity can be so designated. But if we admit that land in its economic aspect may sometimes be the product of labor, logic demands that we classify as the product of labor all soil the utility of which has been enhanced by labor. As applied not to values but to physical objects, "made by labor" is a quality which does not admit of degrees. It does not distinguish between an ordinary brick and the most exquisite products of industry. With such a quality as the distinguishing characteristic of capital, coal in the depths of the earth becomes capital the moment when the first earth is removed from the mouth

[1] Say, Treatise on political economy, Biddle, Boston, 1824, p. 16.

of the shaft. The soil of the earth becomes capital when the first furrow is run—indeed much earlier, for as soon as the pioneer sets out for his new home, he has, in effect, expended labor for the reduction to usefulness of virgin soil, and value begins to flow into that soil. In this view the transforming of natural agents into capital is little more than a rite.

SEC. 12. It was inevitable that the more logical economists should discard a distinction which was as colorless as this. Some have decided to designate as capital whatever may be changed at all by human agency, thus leaving to the category of land nothing but the qualities of extension and position. This is practically the view of Professor Commons.

> What land furnishes to all industries is simply *room* and *situation*. This is the fundamental idea of land in production and distribution, it is nothing more than the bare surface of the earth. Not land, but capital, embodies the forces, energies and material of nature. . . . . . Soil is capital as soon as labor is employed in clearing the land, draining, fencing, plowing, fitting, fertilizing and planting.[1]

Almost the same position is maintained by Professor Marshall:

> When we have inquired what it is that marks off land from those material things which we regard as products of the land, we shall find that the fundamental attribute of land is its extension.[2]

What this is, however, that is bought and sold and "economized" generally under the name of land is not mere "room and situation" or "extension": it is a physical object with numerous qualities of which fertility and capacity for support may be taken as typical. Surface extension is the quality selected for quantitative measurement, just as weight is selected to measure other physical objects of economic importance. Economically,

[1] Commons, The distribution of wealth, p. 29.

[2] Marshall, Principles of economics, p. 192.

extension and weight are not "fundamental," although the objects which possess them could not be conceived without them. The importance of land varies from zero to a positive quantity of a high degree according to its situation relatively to population. Situation is not therefore the fundamental quality that endows land with utility. Beef may be a free good in parts of South America; we should not for that reason say that it is situation alone that gives it value in New York. Land possesses, indeed, "place utility"; it possesses also elementary and form utilities; and it would be hazardous to declare that for all land one kind of utilities rather than the others is fundamental, and distinguishes land from all other economic goods.

It is not difficult to see what it is that has led to the adoption of such an ethereal conception of land. It is desired to find a clear distinction between land on the one hand and the products of labor on the other. Extension and situation are indeed something that labor cannot literally create, while many of the other qualities of land may be artificially produced. While, however, the value of clear distinctions cannot be denied, this distinction, it is obvious, does not really mark off one class of economic phenomena from another, and is therefore valueless.[1]

SEC. 13. Another view, frequently associated with the foregoing, distinguishes between land and capital on the ground that they do not bear the same relation to cost. The early economists held that capital derived its value from cost, while the value of land was dependent solely upon limitation. This view appears in Adam Smith,

[1] For a further discussion of the futility of this distinction between capital and land see Fetter, Recent discussion of the capital concept, *Quarterly Journal of Economics*, Vol. XV.

and is still common wherever the cost theory of value survives. But even among those who recognize that the value of capital and land alike is determined by productivity, and that limitation, not cost, is the true determinant of productivity, there are some who are inclined to draw a distinction between the two agents on the ground that the value of capital tends to equal cost, while that of land shows no such tendency. The form of cost that figures here is obviously entrepreneurs' cost—the expenditure in money or its equivalent necessary for the production of a good. It is the contention that the value of a capital good tends exactly to cover this expenditure, while the value of land, in a progressive society, nearly always exceeds the cost of appropriating it and preparing it for use. A conservative expression of this view is that of Sidgwick:

At the same time I think it reasonable to assume that the rent of much agricultural land in England is materially in excess of interest (at the present rate) on the expenditure that would now be required to bring it from its original condition to its present degree of efficiency for supplying its markets with agricultural produce.[1]

The value of land, then, exceeds the cost that was incurred in the appropriation and improvement of the land, while the value of any capital good equals its cost. If we examine the assumptions upon which this view is based, we find that in the case of the capital good the assumption of perfect competition in production and sale is essential to the truth of the proposition. Such competition implies that both buyer and seller possess adequate knowledge of the current production and of probable future changes in its volume, and that there is perfect freedom from all forms of combination and from favoritism on the part of government or quasi-governmental

[1] Sidgwick, Principles of political economy, 3d ed., p. 287.

functionaries. Moreover, it implies that all changes which can not be foreseen will be met by a perfect system of insurance which eliminates risks for the individual producer. Under these conditions all will agree that a capital good as it leaves the producer will have a value exactly equal to its cost. At any later date its value will be less than cost; but we may look upon a worn implement as merely a fragment of a former whole, as a certain number of the utilities that were formerly embodied in the new implement, and may conceive of it as still worth what it specifically cost, the other utilities, destroyed in use, having been replaced out of the sinking fund that a properly calculated capital good would create, or having been paid for in consumers' goods of equal cost and value.

It is obvious that these assumptions are unreal, but they are useful for certain theoretical purposes. If, however, we wish to distinguish between land and capital on the basis of such assumed conditions, we must be careful to apply the same assumptions in discussing the relation of land value to the cost of appropriating and improving it that we apply to capital in the discussion of the relation of capital value to capital cost.

If, in the traditional manner, we postulate a settled community with unoccupied land upon its borders, and trace in imagination the gradual growth of population and the progress of the appropriation of land, assuming force and fraud and favoritism out of existence, as we do in the case of capital, and assuming full knowledge on the part of numerous persons of the current and future demand for the products of the soil, it is obvious that each zone of new land would be appropriated just when the cost of occupation would be covered by the value which the newly occupied land would possess. At that

particular time, then, the relation of the value of land to its cost would be identical with the relation of capital value to capital cost. If we use the term "income" in a sufficiently broad sense, this would mean an identical relation of permanent income from property, whether capital or land, to the cost of acquiring that property. If by "income" we mean the goods actually produced, there would, indeed, always be a disparity in the earnings of forms of property of equal value and equal cost. This would result from the fact that each form of property would change in value for reasons partly independent of its current productivity; hence there might be a rise in value which would be estimated as a net addition to the income in goods produced, or a decline which would have to be deducted from such income.

In the circumstances which we have assumed, the value of the land would rise; accordingly a part of the income from the land would take the concrete form of an "unearned increment" in land value. Artificial goods, on the other hand, would deteriorate, but the gross value which they would produce would be so great that the net value which would annually accrue to their owner would be exactly equal to the net annual addition to the wealth of the landowner. Through exchange either property owner could turn his net income into consumers' goods adapted to his use, leaving the sources of his income unimpaired. Social habits, indeed, might discourage a man from alienating that part of his income which consisted in the increased value of land, since such alienation would require either the selling of a part of the land or the creation of a mortgage debt—acts which carry with them the stigma of impoverishment. It is conceivable that a social habit might arise com-

pelling the ordinary capitalist to set aside as permanent capital a fraction of his annual interest, just as it is coming to be the approved custom for a corporation to accumulate a surplus fund. But such a habit would not alter the economic nature of the increase in wealth. It would still remain a portion of the net income.

Any one who purchased the land from its original occupant would, as Sidgwick asserts, pay more for it than the cost in labor and capital that would then be required to bring it from its original condition to its state of productiveness at the time of purchase. But the cost in labor and capital that the first occupant incurred in improving the land was only a part of its total cost to him. Another part consisted in the consumers' goods which he had to forego in order to hold the land and secure the increase in value. If to-day I purchase a piece of land which yields no income, but which I expect to rise in value, it would be obviously absurd to say that when I sell it ten years from now the total cost to me will be the price I paid for it. The interest on that outlay for ten years which I shall forego will be just as much a part of the cost as the principal. From the point of view of the individual landowner, the increase in value of land is the reward for a form of abstinence which is as true a cost as any which the capitalist undergoes. Assuming perfect competition,—competition enlightened by foreknowledge of future conditions,—the relation of land value to cost does not differ from the relation of capital value to cost so far as the individual buyer or seller is concerned.

Land has not, however, been appropriated under conditions of perfect competition. Favoritism and fraud have tainted much of the original occupation of land even in our own relatively just age. Mere chance has

played an enormous part in the distribution to individuals of the value of land, enriching some and despoiling others. It is impossible to say whether or not the total value of the land in this country exceeds its cost to individuals, including in cost both of the elements discussed above. Moreover, any investor in land is uncertain whether he will gain through abnormal increase in value, or lose through less than normal increase or positive decline; and uncertainty, it must be remembered, is itself a form of cost, and must be taken into account when we estimate total cost.

Yet, when all is said, the great mass of the land value of to-day is the result of a reasonably calculable rise which has taken place since the era of wild speculation and land robbery. That rise is capitalized in the purchase price long before the circumstances of current production warrant a change in the value of the land, and to the present landholders it represents the reward for saving. There are still, and probably always will be, spasmodic movements of population which transfer values in an unforeseen manner from one to another. Chance incomes will always attach themselves to landownership. But in this respect land can not be placed in a class by itself. All of the elements that vitiate a competitive valuation of land influence the market value of capital goods. No one is unfamiliar with the enormous speculative gains that result from dealing in stocks that represent nothing but aggregates of capital goods of reproducible kinds. The increase in the value of wheat which takes place between October and May is the result of a normal, inevitable, calculable change in the relation of supply to demand. The normal increase in land value is the same, in essence, differing only in the fact that it extends through a period which, measured by the length

of human life, is indefinite. Along with the regular and normal increase in value there are always spasmodic variations which result in great speculative gains and losses. And what is true of land and wheat is true of practically every commodity on the market. Absence of chance income is the exception, not the rule.

Thus if we assume rigidly static conditions, we do not find a difference between land and capital, so far as cost to the individual landowner is concerned. If, on the other hand, we take into account all dynamic factors, we must admit that the value of neither capital nor land corresponds very closely with cost, and that, moreover, it is impossible to prove which factor shows the greatest average variation from cost.

SEC. 14. The question will naturally arise whether this discussion does not overlook distinctions that are of fundamental importance. We may grant that the holding of land involves subjective costs similar to those which are borne by the capitalist, yet we may deny that it is of real social utility that anyone should assume such costs. If one decides that instead of consuming his entire income he will use part of it for the production of a new machine, society is clearly the richer by an additional source of income. But if he uses the same part of his income in the purchase of a right to secure an increase in the value of land, an increase that takes place quite without regard to the act of purchase, wherein is society benefited? Is our stock of land increased, or its productivity enhanced? Again, when new capital is created, productive energy is diverted from the making of goods for consumption to the creation of producers' goods. The abstinence which figures in the creation of artificial capital goods thus means a

diminution in the sum of immediate social satisfactions. Is there an analogous cost in the case of land?

As Professor Clark has clearly shown,[1] the capitalization of the expected rise in land value is in modern times one of the the chief immediate inducements to the development of new countries. The earnings of a settler on the Western prairie, apart from the increase in the value of his homestead, were for decades ridiculously low. No one not under the pressure of extreme want would have cared to pass years of his life in a log-house or dug-out if he had had nothing to expect beyond the scarcely marketable products which the soil afforded. Had there been no prospect of increased land value, the progress of settlement would have been far slower than it has actually been. It would have required a material rise in the price of food to extend the area of cultivation. Instead of a condition in which food is far in excess of the bare needs of society, we should have a condition in which the pressure of population upon subsistence would be an indisputable fact. Willingness to assume the abstinence involved in land-ownership has increased the effective land at the disposal of society, and therefore has been of social utility, like any other form of rational economic sacrifice.

But now that practically all the free land of the country has been appropriated, it may seem that this form of abstinence has ceased to be of social importance. It must, however, be borne in mind that the work of developing land, of raising it from a low grade of social utility to a higher one, may continue indefinitely. In this developmental activity the expectation of an increase in value plays an important role. Highways are constructed and streets are graded and paved far beyond

[1] In lectures given at Columbia University, 1899.

immediate needs. These are to a considerable extent paid for out of taxes on wealth which consists in nothing but expectations. Thus the demands of a future society render themselves effective in present time. Of course it is easy to point out cases in which what is here termed abstinence does no one any good. The mere speculator who invests his wealth in land and waits passively for it to increase in value is not thereby increasing the sum of social utility. But the capitalist who merely buys a share in an existing industrial corporation does no more. The wealth existed before he "abstained." The seller of the share, however, secures free wealth which he may employ in producing new capital goods. Thus the buyer of stock indirectly creates capital. In the same way the speculator sets wealth free when he buys land, and may indirectly create either new land or capital.

Much as in the case of capital, a true social cost is connected with this form of individual cost. The labor and capital which are induced to engage in the development of a new country are diverted from the production of immediately available goods. Present satisfactions are sacrificed for the sake of the future.

SEC. 15. Perhaps the most common distinction between land and capital is based upon the alleged fact that the stock of capital is capable of indefinite increase, while the amount of land at the disposal of a community is absolutely fixed. As expressed by Professor Marshall,[1]

> The stock of land in an old country at any time is the stock for all time, and when a manufacturer or cultivator decides to take in a little more land to his business, he decides in effect to take it away from some one else's business.

This view has been so ably criticised by recent writers that its deficiencies need only to be outlined here. It is

[1] Principles of economics, p. 603. *Cf.* also Say, Treatise on political economy, p. 2, chap. ix.

quite true that if "in an old country" industry has become static so far as the development of land is concerned, one man can add land to his business only by taking it away from another man's business. If capitalization has outlived the dynamic period, the same thing is true of capital. Even while capital is growing, one business ordinarily increases its capital by taking capital from another. The distinction evidently holds only in a society which has so far advanced that the quantity of effective land can not increase, while the quantity of capital may still become greater.[1] Professor Marshall admits that in a new country the stock of land may be materially increased. The extension of roads and canals has had this effect, since they have permitted waste lands to be utilized. The recent vast development of the means of transportation has virtually annexed enormous areas of land to the more settled portions of the world. All this everyone admits. But it is held that as soon as all the land in a country has been occupied and put to economic use, further increase in land is for that country impossible. If, however, it is to be accounted an increase in economic land when a tract of virgin territory is transformed into a cattle range, why should it not be considered a further increase when in consequence of the building of a railroad the same land is converted into fields? To reply that there is no more land because the number of acres has remained the same would be much like declaring that there is no more capital in a steel rail than in an ingot because the number of pounds is unchanged. If we are to think of capital and labor in units of efficiency, we ought to treat land in the same way. The acre of land which supports a highly intensive form of cultivation can not in any economic sense

[1] Clark, The distribution of wealth, p. 338 *et seq.*

be considered as quantitatively equal to one which barely repays the most scanty outlay. Economically it counts for more land. From this point of view it is possible even in an old country to increase the quantity[1] of economic land; and the quantity does actually increase, although the laws which govern that increase are quite unlike those that govern increase in capital.[2]

SEC. 16. The great majority of those who treat land as a separate factor in production define it with reference to one or another of the characteristics discussed above. None of these, as we have seen, possesses any great logical validity. Are we then to drop the terms "land" and "rent," or dissociate the name and the income, designating by the term "rent" one aspect of any concrete income,[3] or total income regarded from the point of view of monopoly advantages,[4] while placing the income itself under profit[5] or interest[6] or even wages?[7] It is merely a question of convenience. If there are im-

[1] Of course this does not mean that when land of the third quality, to use the familiar illustration, becomes necessary to meet the demand for food, and rent consequently rises on that of the first quality, we should consider that the good land now represents more units of economic land. If, however, an improvement in agriculture makes fields of the second quality as fertile as those that were formerly classed as of the first quality, or if improvements in transportation give free access to market to a tract classed with poor land on account of unfavorable situation, it may properly be said that the quantity of economic land at the disposal of society has been increased. And just as an increase in labor lowers the wages of each unit of labor, so what I have termed an increase in land would obviously lower the rent of each unit of land.

[2] For a more complete discussion of this and some other aspects of the same problem see Fetter, The passing of the old rent concept, *Quarterly Journal of Economics*, vol. xv.

[3] Clark, The distribution of wealth, p. 350.

[4] Patten, Theory of prosperity, p. 8.

[5] Patten, Theory of prosperity, p. 114.

[6] Clark, The distribution of wealth, p. 336.

[7] Patten, Theory of prosperity, p 121.

portant economic laws which affect in a peculiar way a group of productive goods which practically coincides with what is ordinarily meant by land, there would seem to be good reason for retaining the old terminology, even if by so doing we run the risk of being classed with those who divide economic goods into the products of man and the gifts of nature, or with those who derive value from cost, or with the champions of other outlived notions.

The most fundamental proposition in the theory of production and distribution is that with an increase in the number of units of any productive agent, if other things remain the same, there will be a decline in the productivity of each unit of that agent, measured in terms of goods created, and a still greater decline in value productivity (defining value as the power to purchase a given complex of goods). So far as the decline in productivity measured in goods is concerned, the cause of this is evidently the greater competition of the increased number of units for opportunity to combine with the complementary agents essential to production, and the consequent necessity of utilizing the inferior powers in such complementary agents. A similar cause lies at the bottom of the additional decline in value productivity; for in an economy based upon exchange, each producing group is merely an element in the great complementary group which creates the social commodity, and the individual groups compete with each other for the most favorable combining positions. Any increase in that competition naturally results in a decline in income.

This proposition may be merely formal, as when it is said that an increase in manufacturing capital without a corresponding increase in mercantile capital would

mean a relative decline in the earnings of the former kind of capital. The statement is of course true, but the assumption is not real, because normally an increase would take place simultaneously in both branches. In order to account for an actual fall in the earnings of manufacturing capital, we should not care to investigate its relation with commercial capital, because we should know that the latter was suffering in the same way and from the same causes. If labor and capital were so related that any increase in the one implied a parallel increase in the other, we could not explain any change in the rate of wages by reference to changes in the volume of capital. To make our assumptions real, it is necessary to treat as units all productive goods which are so related that their incomes increase or decline in consequence of the same causes.

It has been amply demonstrated that there is no close connection between increase in capital and increase in labor, hence an examination of the effect of an increase in capital upon wages is something more than an exercise in logic. It is not a merely hypothetical truth that an increase in capital will raise wages. If wages rise, one would naturally infer an increase in the amount of capital available. This applies, however, only to general wages. An increase in unskilled labor might result in higher wages for skilled labor, provided that the movement from one class to the other is sluggish. New capital may increase one form of capital goods while leaving other forms unchanged in quantity. It may, therefore, be necessary to divide capital and labor into several distinct groups if we are to have approximately satisfactory explanations of such rates of income as prevail in actual society. It does not, however, seem to be a straining of the truth to say

that in a reasonably long period the influences that tend to degrade one form of labor will also injure all other forms, and that a fall in the interest from one class of investments in capital goods will eventually cause a decline in interest from all others.

Economically available land is, as we have seen, quite capable of increase; but an increase in capital does not usually imply a corresponding increase in land. An increase in land, on the other hand, may take place without any increase in capital which could be regarded as its cause. There have been many attempts to account for the fact that in spite of the enormous increase in the total capital of the western nations the rate of interest has rather increased during the past century than declined.[1] Certainly the virtual annexation to civilized society of continents of land, due to improvements in transportation, is largely responsible for this apparently anomalous condition. At times the annexation of new land has unquestionably outrun the creation of new capital, and the rate of interest has risen; at other times it has lagged behind. The important point is that increase has not uniformly affected both factors simultaneously. And the reason is not hard to find. The causes that have led to the development of new territory have been very different from those which have resulted in the steady growth of capital. Transportation agencies have been created for political as well as for economic reasons; thus land has been annexed whether capital was overflowing or not. Another thing that has entered into the development of new countries is the spasmodic movement of population, and with this movement increase in capital has had little or nothing to do. We may therefore conclude that the laws governing an increase in capital are very dif-

[1] Nicholson, Principles of political economy, III, p. 139.

ferent from those which govern an increase in land. It is accordingly justifiable to assume an increase in capital without an increase in land in order to explain a particular rate of interest; and except in a society in which neither land nor capital is increasing, or in which they happen to increase at the same rate, we must separate the two factors, and investigate their reciprocal relations, as well as their joint relations with labor.

If we attempt to classify the productive goods that from this point of view are to be called "land," we should in the first place include all agricultural land, whether "made land" or not, provided that by the creation of irrigation works or of drainage ditches or similar improvements such land could not be very considerably increased without the expenditure of a proportionately greater quantity of energy and capital. We should also include building sites, so far as they could not be increased at practically "constant cost" in capital and labor. We should exclude all elements of fertility which are normally destroyed and renewed; for whether natural or artificial, a fall in interest would cause a corresponding decline in their earning power. We should include permanent improvements which can not be extended indefinitely without diminution in productiveness; as, for example, ditches that drain limited bogs, embankments that prevent overflow, and the like. For even if these improvements could be reproduced at a lower cost, there is no occasion to increase their number, and therefore to diminish their productivity. We should also include so-called natural monopolies—mines, roadways possessing exclusive advantages—in short, every productive good except labor which normally increases in productivity simultaneously with a general fall of interest. And just as in considering the rate of interest on any particular

form of capital it may be necessary to analyze capital into several classes of investments which are affected unequally by dynamic influences, so it may be necessary in the study of particular classes of rents to distinguish several rent-bearing categories. The influences which result in an increase in the agricultural lands at the disposal of society may be very different from those which bring new mines within reach. But in treating of the relation of land as a whole to capital and labor we may disregard such distinctions.

SEC. 17. There is a further reason why it would seem to be expedient to keep land and capital distinct in economic theory. A great part of the significance of economic theory depends on the possibility of establishing units of productive agency independently of their actual product. We speak of the tendency of capital and labor to seek conditions of equalized productivity, of the decline or rise in interest or wages, of normal and abnormal earnings. If we define our unit of productive agency as that quantity of productive goods which actually creates a unit of value, all of these and similar propositions are either truisms or absurdities.

It is customary to define as a unit of productive agency a quantity which will under assumed conditions produce a given value.[1] This implies that such a unit is physically determinable and recognizable under diverse conditions. Two laborers, engaged in unlike occupations, may be said to represent equal numbers of units of labor if they could change places without loss of productivity. This is of course a case of exaggerated simplicity. Yet there are in actual industry large numbers of laborers who may be employed indifferently in

[1] *Cf.* Clark, The distribution of wealth, chap. xxiv—The ultimate standard.

several occupations. When, however, two laborers are so specialized that it would be impossible for them to change places, a notion of their comparative efficiency may still be obtained if there are unspecialized laborers normally working with them who may serve as "common denominators." Without the presence of such unspecialized laborers, it would be obviously impossible to reduce the various kinds of labor to units of efficiency which would be determined independently of their immediate value product.

Artificial instruments of production are in the highest degree immobile.[1] They are designed for a single use, and rarely could one be found which would serve as a common measure for two others of unlike kinds. The unit of capital must therefore be determined in some other way than by direct comparison of finished instruments. It is generally true that capital goods which are employed in the creation of ultimate utilities are the product of other goods that are less specialized. The material and labor that enter into the production of guns do not differ widely from those which are used in the manufacture of sewing machines. The amount of capital in the two forms of goods cannot be compared directly, but it is possible to compare the quantities of the practically homogenous productive agency that has entered into them, and thus we may obtain an indirect measure, correct only under perfect competition, of the capital in unlike instruments.

If land is to be reduced to units of efficiency, it will have to be treated in the way in which we have treated labor. Land is highly mobile,[2] it successively enters into different employments; and, moreover, land in

[1] Clark, The distribution of wealth, p. 118.
[2] Clark, The distribution of wealth, p. 298.

different occupations may frequently be compared by simple physical tests. Some forms of land are, indeed, of no value except for a single use. But there is almost always some economically mobile land which is employed in the same industry and which may serve as a measure of the efficiency of the immobile forms.

If the several factors of production were each divided into non-competing groups,—if, for example, a hard and fast line could be drawn between skilled and unskilled labor, between city lots and farming land, between monopoly and competitive capital,—it would be meaningless to speak of units of labor as a whole, or of capital or land. If skilled labor produced the same amount of wealth as unskilled labor, it would yet be without significance to affirm that there were the same number of units of each kind, since no other common measure than their actual value product would exist. We might, indeed, so define our unit as to make the products of units of both kinds the same, but any dynamic change that could occur would in all probability affect units of different kinds in different degrees. The only way to restore the former equality would be to reapportion the units of one kind or the other, a procedure suspiciously like forcing scientific results. It would probably be better under such circumstances to make six factors of production instead of three. There is nothing sacred about the traditional threefold division of the science. But the facts of competition through margins are perhaps numerous enough to justify the retention of the simpler classification.

There is, however, reason why land should be treated as distinct from capital Capital does, indeed, compete with land, but only as labor competes with land. The primary relation of capital to land is coöperative, not

competitive. As we have seen, an increase in capital normally increases the productivity of land. If we are to call land capital, and divide it into units which shall be equal in productivity to other units of capital, we should need after each dynamic change a new apportionment of units, a species of theoretical stock-watering the utility of which is not apparent.

It may be said that in classifying with land mines and monopoly situation I have committed myself to a position not differing in nature from that of those who classify land with capital. To this charge I hasten to plead guilty. There is no way of equating mines to agricultural land except in terms of value productivity. There are no margins between the two forms of agency. My defense is that the dynamic influences which increase our control over minerals are more similar to those which govern increase in land than to those which are responsible for an increase in capital, and that an increase in capital or of labor affects both alike. For the sake of economy in thought, it is best to make only as many distinctions as are necessary for the solution of the problems at hand. In a study of the static laws of income, there is no reason for a distinction between land and capital. In a study of the most general dynamic influences, it is useful, I believe, to distinguish three factors in production. In a more detailed dynamic study, it would probably be necessary to divide each factor into as many classes as can for any length of time stand in a complementary, rather than a competitive relation with each other.

SEC. 18. Land, then, we shall treat as a separate factor in production. We can not distinguish land from capital on the ground that it is not made by labor, for labor adds utilities to land, and does no more in the case

of any other commodity. We shall not abstract from land all qualities that can possibly be due to labor, because by so doing we should have to apply the term land to something which is not economic at all. Nor is it possible to distinguish between land and capital on a basis of their relations to cost. Land has a cost which under free competition would equal its value, just as the value of capital under free competition equals the cost of production. When industry is dynamic, the unqualified law of cost governs the value of neither capital nor land.

What appears to be, on the whole, the clearest distinction between land and capital, that the quantity of land is fixed for all time, while the quantity of capital may increase, proves on examination to involve a confusion of economic with geographic land. The surface of the world is indeed permanently fixed, but the part which is accessible to man changes in magnitude. It is the latter alone which has significance in economics. Economic land is subject to increase, and so does not differ from labor and capital in this respect.

But the laws which govern the increase of land are not identical with those which cause capital to increase: consequently, when interest is rising, rent may fall; indeed, it would probably do so. Rents may rise in a period of falling interest. Accordingly, if it is desired to account for a change in the rate of interest, it is necessary to contrast land with capital, and to examine their reciprocal quantitative relations. We distinguish between capital and land, then, on the ground that such a distinction throws light upon changes in income and in prices, the fundamental phenomena with which economic theory has to deal.

By the term rent we shall designate the income which the owner of land actually receives. That income would,

under perfect competition, equal the part of the product of industry which the land specifically produces. It may, perhaps, be convenient to designate as the "rent fund" what the land actually produces, whether the present laws of distribution give it to the landowner or not. That rent, so defined, is an independent form of income follows from the fact that land is an independent factor in production. It is necessary now to consider whether rent as a whole is to be classed with interest and wages on the one hand, or with profits and monopoly gain on the other. It is hardly necessary to define wages and interest. The actual incomes of the laborer and capitalist are generally here called wages and interest. There is a wages fund and an interest fund, consisting in the theoretical product of labor and of capital respectively. Profits and monopoly return may be left for later definition.

CHAPTER III.

RENT AS UNEARNED OR EXPLOITATIVE INCOME.

SEC. 19. Economic science deals with the ordinary phenomena of business life, and receives its conceptions originally from popular thought. At first it accepted uncritically the categories of common sense. Where the business man saw a distinction between phenomena, the economist was inclined to discover one. Eventually it became necessary to supplement the grounds upon which the distinction had originally been based by new ones of a purely theoretical nature. Accordingly we find in current conceptions elements derived from popular thought and elements due to theoretical analysis. Thus it is customary to characterize the rent of land as an unearned or exploitative income, as did those who wrote before the development of economic theory, or who have remained uninfluenced by it, and as differential or residual, as only an economist would do. This is not necessarily illegitimate. It is possible that both common sense and theory may have contributed elements essential to a satisfactory conception. It will, however, be convenient to keep the two sets of characteristics distinct and to study each separately.

In the popular view, the distinguishing quality of ground rent is that it is unearned, that it is *par excellence* the income which is secured not by virtue of any useful activity, but through social, political, or legal privileges. The facts of land appropriation lend color to such a view. Everywhere history or tradition recalls a time when "the whole product of labor was the laborer's." Nothing could be more natural than that a condition in which land yields a rent should be accounted

for as a result of the gradual subjection of the masses to favored classes who were shrewd enough to secure a part of the social income without producing anything. And this view has frequently been reflected in economic writings, from the slur which Adam Smith cast upon the landlords, who "love to reap where they never sowed," to the vociferous declamations of Henry George and his disciples.

In order to establish a distinction between earned and unearned incomes, it is essential that the meaning of the word "to earn" should be perfectly definite. An income is earned when a certain relation exists between the merit of the recipient and his reward. But what is the test of merit in economic conduct, and what is the proper relation it should bear to reward? To undergo fatigue and pain for the sake of producing economic goods is recognized to be economically meritorious. It is safe to affirm that the majority of those who write on economics still consider disutility to be the common characteristic of all forms of labor, and hold that it constitutes an ideally just basis for the distribution of the social income. Pain is regarded as the original price for which goods are purchased from nature, and it seems just that the price should be equal to all. In this view it is evident that any excess over that income which bears the normal or average relation to pain would be unearned. If abstinence is regarded as a "pain," a part of interest is earned, a part unearned, according as capital is saved at normal or less than normal sacrifice. As has been pointed out in the preceding chapter, abstinence connects itself with the appropriation and ownership of land as well as with the formation and holding of capital; accordingly rent would be partly earned, partly unearned. Just as it is clear that the same thing is true of interest,

so it is true of wages. If it is assumed that just wages are such as exactly cover pain-cost, there is almost always a surplus which is not earned. If it is held that shares in the surplus of satisfaction created by society should be proportionate to the pains incurred in production, the large number of workers who produce at low subjective costs and who secure high rewards receive an unearned income. On the basis of pain-cost, then, there is no ground for distinguishing rent as a whole from wages and interest treated as wholes. The unearned portion of the social income includes a part of rent, but it also includes a part of wages and interest.

SEC. 20. At a time when economic thought was dominated by utilitarian ideas, it was natural that emphasis should be laid upon the relation between the pains involved in production and the reward derived from it. Modern economics is subjected to wholly different philosophical influences. The ideal distribution which most nearly meets the requirements of modern thought is that which favors the survival of the individual and of society. Society should so distribute its wealth as to encourage the growth of the classes which are most useful to itself. And these do not consist in those who produce at the greatest pain. The man who can create a great deal of wealth without finding labor disagreeable is of more importance to society than the one who creates little and with great difficulty. Accordingly, if incomes are assigned according to productivity, the survival power of society is increased; if they are assigned according to subjective cost, society is encumbered with the unfit. Productivity thus comes to be considered the most expedient, and therefore the most just basis of distribution. Incomes that correspond with productivity come naturally to be regarded as earned.

This change in the point of view has been hastened by the fact that a great deal of the labor of modern industry is not only not disagreeable, but affords some of the most substantial of the pleasures of life. The claim has recently been advanced that pleasure is the normal concomitant of all kinds of work.[1] The position is, no doubt, extreme, but it is probably nearer the truth than its opposite, that labor and pain are inevitably associated. Now it would not be denied that pleasurable work is more meritorious than the activities of play. Accordingly, even those who would be inclined to defend the claim that there should be some fixed ratio between pain and recompense would have to admit that as between purely pleasurable kinds of labor, productivity is the most satisfactory test of merit.

By this test great disproportion in incomes, or in the relation of reward to subjective cost, does not indicate the presence of unearned income. In the existing state of society, laborers are, of course, not rewarded exactly in proportion to their productivity, and therefore an unearned element may appear in wages. Yet there is a recognized tendency to eliminate this element. Wages may therefore be regarded as essentially an "earned" income.

The question remains whether interest and rent are earned or not. We may waive for the present the question whether capital and land are productive in the same sense in which labor is productive. Certainly they have a worth to society analogous to that of labor. But that does not make the income which the owner of land or of capital receives an earned income; nor do the political and social considerations so often employed

[1] Patten, Theory of prosperity, p. 29 *et seq.*

in the defense of private possession of such goods indicate that income from them is ethically based on the same principle as income from labor.

Granting that it is possible to determine exactly how much a man's land or capital contributes, his ethical claim to the enjoyment of that contribution does not necessarily stand on the same footing as does the claim of the laborer to his specific product. It is first necessary to determine how productive goods came into private possession. If they have been acquired in the same method in which wages are earned, we may, perhaps, acquiesce in calling the income from them "earned." From this particular point of view, no one would care to distinguish between the product created by a tool which a laborer makes for his own use and the immediate product of his toil. It would, however, be natural to distinguish between the product of an implement acquired by force or fraud, by inheritance or happy chance, and the product of unaided labor.

The typical capitalist, indeed, does not make, but buys his capital goods. That he turns into capital the wealth which he could have wasted in riotous living is no doubt an advantage to society, but it obviously proves nothing as to whether his income is earned or not. That depends on the method in which the money or wealth which he exchanged for capital was acquired. If that wealth was secured through unfair advantages, the permanent income is also unfair; if it was due to chance, the income from it must be classed with chance incomes, and must be justified as they are.

In exactly the same way the income that the purchaser of land secures is earned or unearned according to the circumstances attending the acquisition of the wealth with which the land was purchased. Land was

originally acquired largely through favoritism; its value has frequently been enormously increased by unforeseen movements of population. Thus it has often served to turn unfair or chance incomes into the hands of favored or lucky individuals. Even at present it is a familiar fact that there is much irregularity in the valuation of land, owing to sentimental considerations which influence both buyer and seller, and owing to the fact that the nature of land deprives it of the benefit of market laws. Nevertheless, in this respect land differs from other producers' goods merely in degree, and the degree is hardly sufficiently marked to justify a distinction between rent as a whole and interest.

It may be said that by the same test the dividends from common stock in a monopolistic corporation might be an earned income. And that is quite true. When a man has purchased in the open market a share of stock, paying for it out of his wages or other legitimately acquired wealth, it would be absurd to say that the income he secures from it is unearned, even though the stock was first put upon the market by a speculator who may have performed no social service. Theft does not adhere to a coin that has once been stolen. The terms "earned" and "unearned" express relations between incomes or sources of income and the particular individuals who possess them. They do not designate qualities that inhere in particular sources of income and that are therefore transferable.

SEC. 21. It has long been observed that the income which the possessor of an economic agent receives may be distinguished into two parts, one of which is absolutely necessary if the services of the agent are to be secured, while the other may be withheld without affecting production. A laborer may receive three dollars a

day, although he would rather work for one dollar than remain idle. He would not work for less than one under any consideration. The one dollar, then, is the wage which is strictly necessary to make the labor of this particular workman forthcoming. Interest may likewise be analyzed into these two elements. This distinction has by some writers been identified with the distinction between earned and unearned income. One economist says,

> It is easy to see that in many cases individuals obtain for their capital more than is necessary to make it forthcoming or available. . . Thus we reach the conclusion that in interest, as in economic rent, there is an unearned element.[1]

This view is manifestly derived from the notion that land rent is the type of unearned incomes. Wages and interest as private incomes could not wholly disappear without crippling industry, while the volume and direction of industry would not necessarily be changed if no private individual received an income from the soil. The whole of rents, it is said, might theoretically be taken by taxation without limiting or changing the employment of land, while only a fraction of wages and interest could be thus appropriated to the state without affecting industry.

It is obvious that it is unjustifiable to designate as unearned that part of a man's income which he would sacrifice if the alternative were to lose his employment. There are a great many laborers who are so specialized that they can earn their living in only one occupation. A fall in their wages, so long as it does not impair their control over the needs of existence, would not necessarily, or even probably, cause them to work less diligently. The difference between the income that

[1] Nicholson, Principles of political economy, III, p. 232.

a specialized laborer actually receives and the minimum which he could be forced to take is necessarily greater than the difference between the actual and the minimum wage of the laborer to whom alternative employments are open. It would, however, be absurd to say that the latter workman *earns* a greater proportion of his income than the former. In like manner the capitalist who has invested in fixed forms of property might accept a very low rate of interest, since otherwise he would receive no interest at all, while the one whose capital consists in short-period investments would be able to demand a fairly steady return. Clearly the one does not earn his income any more than the other does.

SEC. 22. But though we repudiate the identification of necessary with earned incomes, we may consider the question whether the income of land may as a whole be treated as an income which is not necessary to production, while the incomes of labor and capital are necessary. If labor were perfectly mobile, it is evident that the actual wage that a laborer receives would be the minimum that he would take. Absolute mobility implies the power to migrate from an industry without loss in productive power; accordingly, if wages were reduced in one branch, laborers would migrate until scarcity of labor restored wages again. If capital were quite mobile, it is obvious that its entire natural income would at all times be necessary to secure its employment in any industry. If, however, land were quite mobile, no landowner would consent to take a smaller rent than the maximum that could be paid—the whole product of the soil.[1]

[1] It may be said that no degree of mobility could make rent a necessary income unless private ownership of land exists. But private ownership is always assumed when we speak of the mobility of capital, therefore it may fairly be assumed when the mobility of land is under discussion.

If instead of considering the effect of a reduction of rent in a single branch of production, we consider the effect of a reduction of rents in all industries, we see that rent as a private income is not really necessary to production. So long as rent was reduced in a single industry, the landowner could put his land to another employment. Under the present hypothesis, nothing would be gained by so doing. The loss in income would be inevitable. If in like manner we assume a reduction of wages in all industries, production would not necessarily be affected unless the means of subsistence were impaired. Exactly how great a reduction wages would stand it is impossible to say. Yet we may be sure that total wages could be considerably reduced without affecting production. The same is true of interest. The capitalist who has alternative uses for his capital has the power of fixing a minimum far above what he would take if he had no better alternative.[1]

To return to realities, we find that it is the power of the owner of a form of productive agency to withdraw it from one employment and to make use of it in another that actually determines the distinction between the necessary and unnecessary parts of the income derived from it. There are, indeed, forms of land so immobile that their rent could be reduced to practically nothing with-

[1] The immediate effect of the fall in income assumed in the text would doubtless be a diminution in production. Laborers would feel aggrieved and would refuse to work, or would work with diminished zeal; capitalists would be less inclined to keep their stock intact; landlords would let some of their fields lie fallow. But if the low return continued long enough to establish lower standards, the former volume of production would very probably be restored. At all events, the change would be insignificant as compared with that which takes place in a single industry when the return to mobile agents is abnormally lowered.

out lessening the amount of service which they perform; and this is true, only in less degree, of labor and capital of certain kinds. The real distinction, then, is not between rent as a whole and wages and interest in their entirety, but between the incomes of the immobile and the mobile forms of productive agency, whether land, labor, or capital.

SEC. 23. An unearned income is not necessarily an unjust one. There are many forms of income which can not in any sense be said to be earned by their recipients, which are yet socially expedient and are recognized by the popular consciousness to be perfectly just. Such, for example, are gifts, bequests, and inheritances, as well as ordinary chance increments to normal income in which all who have sufficient enterprise and good fortune may share. Numerous economic writers, while agreeing that rent is unearned, have defended it as they defend these types of abnormal income. There is, however, a large class of writers who regard rent as a subtraction from the incomes either of the laborer and the capitalist or from that of the consumer, and hence as an exploitative income. And with the characteristic looseness of a popular science, it is now the consumer who is thought of as the one who endures the entire wrong, while now the laborer and capitalist are regarded as the only parties aggrieved. As one would expect, Adam Smith advocates both views quite impartially.

> As soon as land becomes private property the landlord demands a share of almost all the produce which the laborer can either raise or collect from it. His rent makes the first deduction from the produce of the labor which is employed upon land.[1]

Quite clearly it is here the laborer who is exploited. But elsewhere, while the laborer is indeed thought of as

[1] Wealth of nations, I, chap. viii.

the victim of exploitation, it is in his capacity as a consumer.

The wood of the forest, the grass of the field, and all the natural fruits of the earth, which, when land was in common, cost the laborer only the trouble of gathering them, come, even to him, to have an additional price fixed upon them.[1]

The most familiar presentation of the former conception, as an explicit charge of exploitation, is that of Henry George:

Thus rent or land value does not arise from the productiveness or utility of land. It in no wise represents any help or advantage given to production, but simply the power of securing a part of the results of production.[2]

One of the most common methods of presenting the law of rent, while not explicitly designed to show that the laborer and the capitalist are exploited, does nevertheless convey that implication. If labor and capital, it is said, are applied to land in successive "doses," the later doses are less productive than the earlier. The employer need not pay more for any dose than he pays for the last one. In Von Thünen's example[3] the earlier units of labor engaged in gathering potatoes create a large product; as additional units are employed, and it is necessary to dig and rake the soil more carefully, a much smaller product is created. The last laborer gets what he gathers only with great difficulty; the earlier laborers can get no more. The appearance of an additional workman is thus a signal to the employer to cut the wages of all the rest, and the profit thus secured is soon conveyed to the landlord and becomes a part of the permanent rent. If we place ourselves in imagination at the time when land was, for all practical purposes, unlimited, and observe the development of landed

[1] Smith, Wealth of nations, I. chap. vi.
[2] Progress and poverty, p. 149.
[3] Der isolirte Staat, 2te Aufl., II, 175.

property and rent, it appears that the entire rent is made up of increments transferred from wages and interest, first to the entrepreneur, and later to the landlord.

It may be said that such a transfer of income is inevitable in a competitive society; that it would be bad business, philanthropy, for the landlord to forego the advantages which the misfortunes of the other factors place in his power. But if rent can be truly described as peculiarly a transferred income, such a defence is merely a reflection upon the ethics of business. If, on the other hand, land becomes more productive upon the appearance of additional labor and capital, it is not necessarily an act of exploitation which gives the landlord a greater rent. If labor and capital become less productive when their quantity increases, they are not robbed because their incomes are reduced; and though the rent of land is increased at the same time that the return to the other factors is diminished, we should regard the changes as merely the effects of causes working simultaneously, not as the transfer of income from one factor to the other. There are certain considerations that make such a view reasonable. Is not land which is at present cultivated intensively of greater social utility, of greater productivity, than it was when merely skimmed by extensive cultivation? And is not capital, when scarce, more productive than it would be if it were approaching a condition of superfluity? These questions can be answered only by an analysis of what is fundamental in our notions of productivity.

SEC. 24. In primitive industrial conditions, it is safe to affirm, productivity was predicated of labor alone. The artisan regarded himself as the sole cause of the goods that issued from his hands. The idea that the tools with which he worked, the materials which he em-

ployed, were jointly productive with himself would have seemed utterly absurd to him. He recognized them as conditions essential to production, but as nothing more. If he owned the tools and materials, he regarded the commodities which he created by their aid as the pure product of his exertion. If he had to rent his tools and pay interest on the capital invested in materials, he regarded the payment as a deduction from his wages, a necessary deduction, to be sure, and compensated by the advantages of use, just as a modern day-laborer, mulcted by the "padrone," regards his assessment as a deduction from wages, compensated by sufficient advantages. That this was once a common view is amply attested by the fact that among backward social classes, as, for example, immigrant handicraftsmen and even farmers, a like view prevails to-day.

But even in primitive industry there must have been laborers who were not employed directly upon the commodity, but whose presence was nevertheless necessary for production, as, for example, those engaged in directive and protective labor. Even at a time when its importance was recognized, such labor has been termed "unproductive." The "productive" labor of Adam Smith was obviously that which changed directly the form of materials. With the advent of machinery, however, the laborer ceases to be even in seeming the sole cause of the changes which the material undergoes. It would be illogical to affirm productivity of the smith who forges nails without affirming it of the machine which performs the identical operation. Still less natural would it be to call productive the labor of a man who merely watches a complex machine, while defining as unproductive that labor which is engaged in organizing and directing other

labor. An increasingly large proportion of total labor is held aloof from physical contact with the commodities produced; it is nevertheless indispensable to production. The quality of indispensability occupies the economic position once held by the act of imparting utility directly by muscular exertion. If productivity is to be a term of any significance in modern science, it must be used to connote economic importance and nothing else. The labor of the loom-tender is productive, but so also is that of the foreman and the night-watchman. The loom is productive, but so also is the yarn, and so are the bricks of the factory chimney. In this sense the ground on which the factory stands is obviously productive.

Not only can productivity be affirmed of capital and land, but its precise degree is ascertainable. Just as the importance of any unit of consumers' goods can be found by measuring the satisfactions depending upon it, so the importance of any unit of producers' goods can be determined by computing the loss in consumers' goods that would result if it were withdrawn from production. To test the true importance of a unit of producers' goods of any kind, all that it is necessary to do is to withdraw that unit, and after making the best possible rearrangement of complementary agents, to determine the loss in productivity. It is clear that productivity in this, the only natural sense, is a marginal quality. Interchangeable units of productive agency have a like economic importance. "Marginal productivity" is a redundant expression, since there is no intra-marginal productivity which exceeds that of the margin. True, if the capital in the power wheel of a mill were destroyed and could not be replaced the loss would be very much greater than the loss which would

result from the destruction of raw material representing an equal amount of capital. That would be true, however, not because a unit of capital of great "total productivity" had been destroyed, but because all the remaining capital of the mill would be sterilized. "Total" or "intra-marginal" productivity results from the imputation to one factor of the products of complementary factors.[1]

Productivity, in the sense of the effective importance of a producers' good, is obviously no absolute quality of that good, but varies according to its economic relations. And the most essential factor in determining productivity is the sufficiency or insufficiency of complementary agents, without which producers' goods are of no importance at all. The productivity of labor changes with every change in the quantity of capital and land upon which it is employed, and this by virtue of no change in the operations performed by labor.[2] Land likewise varies in productivity with every change in its quantitative relations with labor and capital.

When a producers' good is for practical purposes unlimited, its productivity is *nil.* As goods which are to it complementary increase in quantity, it becomes relatively limited, and is endowed with productivity, and with each increase in the quantity of complementary agents its productivity increases. In the nature of the case such a change is at the same time the cause of a decline in the productivity of the complementary agents —not simply a decline in marginal productivity, but a decline in productivity in general. To speak of the productivity of earlier units as unchanged is to mistake certain movements, applications of mechanical force and

[1] Wieser, Natural value, 83 *et seq.*

[2] But *cf.* Loria, Analisi, I, 39 *et seq.*

of chemical or vital processes which may or may not have economic importance, for relations that are purely economical. Economically, the productivity of labor and of land change simultaneously. There is no transfer from one to the other.[1]

Few have found difficulty in comprehending the fact that when the quantity of available land is extended, labor becomes more productive. Yet such an extension of the area of economic land normally means a fall in rents, until population again reaches a condition, relatively to land, similar to that which existed before the increase in land. Obviously, if the productivity of land is defined with reference merely to its absolute powers of supporting vegetable life, immediately after each increase land is exploited in favor of the laborer.

The facts of economic history give a semblance of reality to the assumption of unlimited, and therefore unproductive land, while unlimited capital or labor is inconceivable. It is accordingly easier to conceive of the whole of rent as transferred from labor and capital than to conceive of wages and interest as the transferred income of land. But that part of wages which exceeds the subsistence minimum may be so conceived, and must be so conceived in certain analyses of the nature of economic productivity.[2] The conception that any income can be treated as primarily a transferred income is, however, theoretically inexcusable. It is based upon a vague notion of physical productivity which can have no standing in economics. It would be absurd to attempt to distinguish between a part of the total product which is *physically* due to labor alone; it is likewise absurd to affirm that the pure physical pro-

[1] *Supra*, chap. i, sec. 8.
[2] Clark, Distribution of wealth, *passim*.

duct of labor changes, or that it remains stationary under changing complementary relations. Economic productivity certainly does change with changes in the quantitative relations of productive goods.

In this connection it may be worth while to touch upon the notion that the income from land has a peculiar dependence upon the law of diminishing returns. It has been said that rent is not due to the fertility of the land, but arises because land yields diminishing returns to labor and capital employed upon it.[1] It has been shown that a fixed amount of labor yields diminishing returns to successive units of capital and land combined with it; and that the corresponding fact is true of a fixed amount of capital.[2] Were this not true, neither labor nor capital would be an economic agent. Diminishing or limited returns to increasing quantities of complementary agents are, of course, essential to the productivity of any agent. They play the part that limitation plays in the valuation of a consumers' good.

SEC. 25. The view that rent is an income transferred from the consumer to the landlord was especially common among the older economists, and still survives. It is most clearly stated by Sismondi, Buchanan, and Ricardo.

> It is the only part of the product of labor of which the value is purely nominal, devoid of reality. It is, in fact, the result of the augmentation in price which a seller obtains by virtue of his privileges, without which the commodity would really be worth more.[3]

> The high price in which the rent or net surplus originates, while it enriches the landlord, who has the produce of agriculture to sell,

[1] Ricardo, Political economy, 63.

[2] Clark, Distribution of wealth, *passim;* also, Hobson, The law of the three rents, *Quarterly Journal of Economics*, V, 270.

[3] Sismondi, De la richesse commerciale (cited by Malthus, Political economy, 138).

diminishes, in the same proportion, the wealth of those who are its purchasers, and on this account it is quite inaccurate to consider the landlord's rent as a clear addition to the national wealth.[1]

It must then be admitted that Mr. Sismondi and Mr. Buchanan, for both their opinions are substantially the same, were correct when they considered rent as a value purely nominal, and as forming no addition to the national wealth, but merely as a transfer of value, advantageous only to the landlords and proportionably injurious to the consumer.[2]

The same view appears sometimes in a slightly different form: "Rent, then, is a creation of value, but not a creation of wealth; it adds nothing to the resources of a country."[3]

We have here another example of that prejudiced logic which persists in regarding rent from one point of view, wages and interest from another.[4] As a money income, paid by the business undertaker to the landlord, and in the last analysis paid by the consumer, rent is, of course, no net addition to the wealth of a community. The goods that pass into the hands of the landlord existed before in the possession of the buyer of agricultural produce. But wages and interest, as money incomes, represent merely the transfer of wealth that is already in existence, and constitute no net increase in the social wealth. If, however, by wages and interest we mean not the money incomes which are usually designated by those terms, but the specific product in concrete goods that labor and capital produce, regarding

[1] Buchanan, cited by Malthus, 139.

[2] Ricardo, Works, McCulloch's ed., p. 244.

[3] Ricardo, Works, McCulloch's ed., p. 244. Practically the same idea appears even in modern economics. Thus we have the statement of Professor Carver that "the amount of rent, as I understand it, is the excess of the profitableness of the industry over the productiveness of the industry." Publications of the American Economic Association, Papers and proceedings of the fourteenth annual meeting, 198.

[4] Roscher, Political economy, Lalor, ed. p. 32.

the receiving of money wages as a mere exchange of goods for goods, wages and interest are indeed net additions to the wealth of a community. Land, as has been pointed out, is also productive; and the primary form in which rent appears is as the specific product of the land—clearly a net addition to social wealth. In the sense, then, in which rent is not an addittition to wealth, wages and interest are not; in the sense in which wages and interest augment the national wealth, rent does also.[1] The flow of goods from which all increase in the wealth of society is derived appears under economic analysis to consist in the products of land and the products of labor and capital; in rent, wages, and interest alike.

[1] Clark, The distribution of wealth, chaps. xxii, xxiii.

CHAPTER IV.

RENT AS A DIFFERENTIAL OR RESIDUAL INCOME.

SEC. 26. Most of the views that were considered in the preceding chapter conveyed, explicitly or implicitly, the notion that there is an ethical distinction between rent on the one hand and the return to labor and capital on the other. Scientific writers, however, have often tried to avoid introducing ethical ideas into economic discussions, and have attempted to distinguish rent from wages and interest by reference to purely economic characteristics. This they have usually done by describing rent as a differential or as a residual income. Units of labor and of capital, it is claimed, yield equal incomes; units of land vary in their productivity. Moreover, there is a certain uniformity in the return which labor and capital receive at different periods, while the return to land shows the widest possible range of variation. The rent of land may, therefore, be described as differential, whether we compare the productivity of different units at the same period of time, or the productivity of the same unit at different times.

Since there appears to be this uniformity in the return to labor and capital, while the return to land varies so greatly, it is thought to be most convenient, in the theory of distribution, to establish directly the laws that determine the productivity of labor and capital, leaving rent to be indirectly determined. Whatever is produced above the normal return to labor and capital will be rent or something similar to it in nature. Rent may, therefore, be best treated as a residuum. It is to be noted that the view of rent as a differential is funda-

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mental, since it attempts to describe the essential nature of the income; while the description of rent as a residual is merely a matter of convenience in theory.

We may take Walker's statement as fairly representative of this view:

> Rent arises from the fact of varying degrees of productivness in the lands actually contributing to the supply of the same market, the least productive land paying no rent, or a rent so small that it may be treated as none.[1]

Stated thus, there is a very old and very obvious objection which will bear repetition. In the classical illustration, it is when lands of the second grade of fertility are brought under cultivation that lands of the first grade begin to yield a rent. With certain reservations we may admit this, and yet deny that it is *because* of the employment of lands of the second grade that rent emerges on the better lands. When the demand for the products of the soil increases, the share of the produce which the landowner can exact becomes greater at once, quite without regard to the extension of cultivation to the poorer grade. This becomes clear if we assume that there is an appreciable difference between the two grades of land. Prices will have to rise considerably before the poorer land can be employed, and since according to the usual assumption the laborer and the capitalist can get no greater returns than before, the landowner must necessarily receive an increase in rent.

If we prefer the other common form of statement of the same "law," namely, that rent is due to the differences in the productiveness of the several powers of a given piece of land, we find that the same objection holds. The first "power" yields a rent, not because the second power is called into use, but quite independently of that

[1] Walker, Land and its rent, p. 21. *Cf.* also Macfarlane, Value and distribution, p. 87.

fact. The method of illustration just employed shows that it is not only possible that rent should emerge on the better powers before the worse ones are utilized, but that the utilization of the poorer powers can never logically be said to cause the better powers to yield a rent. Emergence of rent on the better grades or on the better powers of land, and the employment of the worse land or powers are different effects of the same cause.

It may be said that in the case assumed the increase in the income of the landowner is not a true rent, but a species of monopoly gain, since it is a "marginal" return, not differential. This is, of course, to assume the very thing that it is sought to prove, that the income from land is caused by differences in the fertility of the soil.

Even if it is assumed that the gradations between the different kinds of land and the different powers in each kind are infinitesimal, so that an extension of cultivation is an inevitable concomitant of rise in rent on the better grades or powers, it would obviously be incorrect to speak of either phenomenon as the cause of the other. But under such an assumption it would be quite correct to speak of rent as being subject to differential measurement. And that is practically all that the classical position signifies.

The term "differential" has received such wide application in recent economics that the definiteness of its meaning is in danger of disappearing. When we say that an income contains a differential element it is by no means clear what that element really consists in. It may be merely a quantity of satisfaction, such as that which is afforded by the earlier units of consumers' goods; it may be a part of the price, such as the addi-

tion to normal price due to monopoly control; or again, it may consist in concrete goods. The laborer who works in a community which is well provided with capital and land thus produces an income containing a differential element, measured in goods. If, then, we wish to consider whether rent may be distinguished from wages and interest on the ground that it is a differential return, it is necessary to be on our guard against shifting our point of view. One can readily see that it is execrable logic that will confuse an income which is differential from an objective point of view with the subjective differential that may be attached to any income. Yet it is hardly too much to affrm that this is what modern economic terminology tends to do.

It is accordingly necessary to consider the various points of view from which rent may be regarded as a differential income, and to examine wages and interest from the same points of view. In this way, and in this way only, will it be possible to determine whether we have here a characteristic which sharply distinguishes rent from the two other forms of income.

The subjective differentials which compose the so-called consumers' and producers' rents do not require detailed discussion here. If rent were indeed an income which entailed no subjective cost, while wages and interest served chiefly to cover such cost, we should have one perfectly definite characteristic which would mark off rent from interest and wages. But it is generally admitted that there is a surplus of utility over disutility in the income to labor and capital, and as we have seen, only a part of the rent of land can be considered as such a surplus.[1] Moreover, subjective surpluses, if correctly analyzed, have no effect upon either the production or

[1] *Supra*, chap. ii, sec. 13.

the distribution of wealth. It is a matter of interest to the social philosopher that the earlier hours of the working day afford a considerable surplus of pleasure over pain. But if that surplus were reduced to practically nothing, the laborer would have no reason for working fewer hours, and hence the volume of production would be unchanged if the surplus ceased to exist. In like manner the consumers' surplus on the earlier units of goods acquired does not affect the number of units which will be demanded, nor does it affect the utility or the value of the last unit. Objective differentials alone are of importance in economic description.[1]

The most familiar type of objective differential is that which is illustrated in the Ricardian formula. An economic agent is divided into units which are measured, not according to their economic qualities, but according to certain physical characteristics. A unit of land is an acre, a unit of labor is an individual workman, a unit of capital is a particular machine. Such units may be arranged in a series, and their economic importance may be measured either from the least productive or from the most productive. If the former method is adopted, as much of the income of a better unit as exceeds the productivity of the worst unit is a positive differential. The latter method would create a series of negative differentials.

As it is assumed that the worst unit of land yields no rent, the product of any other unit is regarded as a positive differential. If it is possible to find capital goods that pay no interest, there is no reason why the return to any unit of capital should not be regarded as a differential of the same nature. Professor Clark has pointed out the fact that there is a point in the life of each

[1] *Supra*, chap. i, sec. 6.

perishable capital good when it yields its owner no surplus above the return to the complementary agents that are employed with it.[1] It may be possible to find laborers so inefficient that they add nothing to the product of industry, in which case the wages of better labor could be described as a differential. If, however, it is preferred to regard as marginal labor that which receives a wage sufficient for bare subsistence, the greater part, though not all, of the return to efficient labor may be treated as a differential. The claim has been urged, and with much force, that land requires a minimum return for upkeep;[2] and the reduction to desert of grazing lands in the West and in Australia proves that even "marginal" lands require a certain care, and so must produce a minimum return similar to the minimum of subsistence for labor. The differential in rent would then be measured from a minimum return, not from zero. But whether the differential is measured from zero or from a minimum return is a matter of practically no theoretical significance. Few economists would now subscribe to Walker's dictum that "the whole theory of rent rests on the assumption that there is a body of no-rent lands."[3]

Although it is possible to conceive of units of labor and of capital that are based upon purely physical characteristics, yet to do so is to violate established usage. A unit of labor in economic theory almost always means an amount of labor of a given efficiency. If two children are able to do the work of one man, we should naturally say that they represent as many units of labor as a man. If there are laborers who make no specific addition to production, we should not call them units of no-

[1] Clark, Distribution of wealth, 96.
[2] Hobson, Economics of distribution, 155.
[3] Political economy, 3d ed., 222.

wage labor; we should say that they represent no labor at all. The capital goods which are at the point of being discarded and which add nothing to the product of industry are not capital in the economic sense of the word. "All portions of capital do, in proper economic theory, bear an equal rate of interest,"[1] and the same thing is generally held to be true of all units of labor.

Economic usage notwithstanding, there appears to be no reason in logic why two acres of poor land should not stand for the same number of units of land as one acre of good land. To reduce land to units of efficiency is a process exactly analogous to the reduction of labor and capital to units of efficiency. No-rent land is no more an economic agent than is the capital that yields no interest.

It is not, however, difficult to understand why the unit of land should have been described in one set of terms and the units of labor and capital in another. In the first place, in spite of the variations in the efficiency of labor, custom has always tended to reduce to a certain uniformity the work actually performed by ordinary workmen. A "day's labor" formerly conveyed a far more definite meaning than "the use of an acre of ground." It is the tendency of modern improvements in the technique of agriculture and in transportation to lessen the differences in the productivity of the soil.[2] At the same time, modern industry permits of a wider range of personal differences than did a régime of custom. The term "an average acre of land" thus comes to possess a more definite significance than formerly, while the term "an average day's labor" conveys a less

[1] Walker, The source of business profits, *Quarterly Journal of Economics*, vol. ii, p. 287.

[2] Patten, Premises of political economy, p. 27 *et seq.*

definite meaning with the progress of industry. The possibility of reducing land to units of efficiency is at present scarcely less than that of reducing labor to similar units.

SEC. 27. But the chief cause for the difference in the treatment of land on the one hand and labor and capital on the other was the conviction that the differential on the better land bore a relation to price quite different from the relation to price of the analogous portions of wages and interest. One might call the wages of the poorest workers marginal, and the excess over such wages that better labor receives differential. But the relation of the differential and the marginal portions of wages to price was seen to be identical. Whether sugar beets are cultivated by three children, by two Russian women, or by one man, the cost to the entrepreneur and the price to the consumer are the same. To classify portions of the wages of the more efficient workers as differential and non-differential has, therefore, no economic significance whatever. If, however, workers were paid equally, the wages of the least efficient labor might bear a peculiar relation to price, and the distinction would be of economic importance.

The description of rent as a differential of this kind is then of theoretical importance if rent is not a cost, if it does not enter into price. Until it is independently proved that rent is not a cost, the differential analysis which is based upon a comparison of the productivity of unlike units is incapable of distinguishing rent from wages and interest. The discussion of this question must, however, be postponed to the next chapter.

SEC. 28. But even though we describe the units of labor, capital, and land in terms of productivity, so that there are none which do not yield a return, it is never-

theless possible to treat their incomes as differentials. Although such units are by definition equally productive, they must differ in some respects that are of great theoretical importance. They will require very different proportions of complementary agents to endow them with normal productivity.[1] Thus the capital which is embodied in old and inefficient appliances will require a far greater quantity of labor to work it than an equal amount of capital embodied in machinery of the most improved type.

The goods produced by the aid of the former appliances will represent a high labor cost and a low cost in capital.[2] As the machinery deteriorates still more, the cost of the product resolves itself more and more into labor cost until a point is reached where the product is economically created by labor alone. This peculiarity of industrial units is nowhere so obvious as in the case of land. A unit consisting in very poor land will often require a comparatively great expenditure for labor and capital ; and if the land be sufficiently poor, the entire product may be due to the labor and capital.

Under the assumption of perfect competition, the various units of labor will have migrated from point to point until they have become equally productive, whether they are combined with a hundred units of cap-

[1] In his criticism of Professor Clark, Loria objects strenuously to the notion of varying proportions in the combination of industrial agents. The proportions, he says, are fixed by immutable physical laws, (Il capitalismo e la scienza, 19). The fallacy of his position is due to the fact that he conceives of units of capital, labor, and land as physically alike, when in fact they are alike only with respect to some economic quality that we select as relevant to our immediate needs. It would be absolutely impossible to select a unit of capital which would be based both upon static productivity and upon its habits of combining with other units of productive agency. But this is clearly what Loria tries to do.

[2] Clark, Distribution of wealth, p. 96.

ital and land or with one unit, or with practically none at all. If, then, we desire a measure of the efficiency of labor, of its true importance to the economic organism, we have it in the product of the labor which is working virtually unaided.

We may, if we choose, arrange the supply of all commodities with reference to the relation between the value of each unit and its cost in labor alone. Those portions of the supply that are produced by labor which is combined with very little capital and economic land would represent the margin of greatest labor cost; all other units would have a value greater than their cost, counting only the specific form of cost which we are considering. That surplus value would of course be the income to capital and land described differentially. In the same way it is possible to form a differential series with reference to cost in capital, and another in which the cost in the uses of land receives similar emphasis. The significance of such series of differentials consists in the fact that a field thus appears in which some units of each agent work practically unaided. It will be remembered that one of the chief ends that the classical economists sought to attain was the discovery of a field in which the whole product of industry was divided between labor and capital, where "whatever is not interest is wages."[1] It would be superfluous to point out here the connection between Ricardo's law of rent and his proposition that commodities exchange in proportion to the labor that has been expended upon them. Now it is no more impossible, theoretically, to discover a field where labor works virtually unaided by capital and land than to find one in which labor and capital work without the use of economic land. In

[1] *Cf.* Von Thünen, Der isolite Staat, II, 137 *et seq.*

either case it is necessary to disregard the trifling contribution which is due, even at the margin, to the excluded factor or factors.

The advantage of the method of differential analysis here suggested is that it does not require the existence of no-rent land in order to find a field where the product of labor and capital are practically dissociated from the product of land; nor does it depend upon the margins of labor and capital to distingush pure interest and wages. Where a great deal of labor and capital a re employed on a small amount of land, even if that land pays a considerable rent per acre, the value of each unit of commodities produced will more nearly resolve itself into wages and interest alone than where a smaller amount of labor and capital are employed upon a great deal of land that pays a small rent per acre. In a developed economy it is perhaps more likely that the pure product of labor or of capital will appear in connection with the better land than in connection with the poorer.

SEC. 29. Both of the differentials discussed above are phenomena of static society. If industry became quite stationary, it would still be possible to find acres of land, capital goods, and laborers that produce a merely nominal return, or labor combined with such insignificant qualities of intra-marginal capital and land as to be working virtually unaided. But there is another class of differentials illustrated in the so-called intensive law of rent which actually appear as differentials only when dynamic movements of industry take place, and which can be explained only on the assumption of dynamic phenomena.

In any group of producers' goods that are combined for the production of a single commodity, a change in the proportions of land, labor, and capital will mean a

change in the productivity of every unit of each factor,[1] provided that the additional units are of the same general character as the original ones, and that no change in the technique of production has altered the normal proportions of combination in that branch of industry. If the amount of labor increases, the productivity of each unit of labor declines, while each unit of capital or of land becomes more productive. We may conceive of the quantity of labor increasing until the productivity of any unit becomes so small as to be quite negligible. We should then have a series of differentials representing the productivity of labor under the widest range of conditions that are of economic importance. Under the worst conditions, from the point of view of labor, the product of a unit is zero; under the best conditions it is the entire value which labor could create if combined with unlimited capital and land.

If we start with the most favorable possible condition for labor—when the units of labor are few and capital and land are practically unlimited—and gradually increase the number of units of labor, we shall have a decline in the productivity of each unit. The earlier units, it is usually said, are more productive than the later ones; accordingly, a differential surplus connects itself with them. Accurate analysis shows, however, that at any given time there are no favored units, that in the economic sense of the word the "earlier" and the "later" units are equally productive. The differential series is connected, not with different units at one time and under one set of conditions, but with the same unit, or identical units at different times and under different conditions. At no time, then, does such a differential

[1] *Supra*, chap. i, sec. 8.

surplus exist, except in thought.[1] Since, however, a change in the quantity of labor which reduces the productivity of labor increases at the same time the productivity of the other factors, it is not unnatural, though inaccurate, to identify the increased income of the factors of which the position has been improved with the diminished productivity of the factor which suffers through the change.[2]

Such a differential, or pseudo-differential, we may designate as the dynamic differential, to distinguish it from the kinds of differentials discussed above. It is the one which appears in the "intensive law of rent." Originally the rent of land alone seemed capable of being described as a differential of this nature. But in recent years several economists have successfully applied the same method to the explanation of wages and interest.[3] Its application to capital and labor are obviously implications of its application to land. Why, then, was this fact practically overlooked for a whole century, and why do so many economists of the present day regard it as merely an over-refinement of theory?

SEC. 30. The conception of a dynamic differential series rests upon the assumption that one of the factors of production remains stationary in quantity while the quantities of the other factors increase. The "earlier" and "later" increments that figure in the illustration are units of the factor which varies in quantity. Now if there were some law that made it inevitable that all of the factors of production would increase at the same

[1] For a slight qualification of this statement *cf. supra*, p. 15, footnote.

[2] *Supra*, chap. i, sec. 8.

[3] Clark, Distribution of wealth, p. 319 *et seq.;* Hobson, The law of the three rents, *Quarterly Journal of Economics*, vol. V, p. 270.

time and in the same degree, such a conception would be wholly valueless. It would be a description of an impossible phenomenon. If, on the other hand, one of the factors increases at a more rapid rate than the others, it would be quite legitimate to assume that it alone increases while the other factors remain unchanged. The description would be only approximately true, but it would gain in clearness what it lacked in accuracy. If one of the factors is capable of increase, but is of such a nature that it inevitably lags behind the others, it would be unnatural to assume that it alone increases in quantity while the other factors remain unchanged. All of the phenomena of change could be accounted for by assuming that the factor which is least subject to dynamic influences remained static, while assuming that the other factors increased somewhat less than they do, absolutely considered.

When Ricardo wrote, the quantity of available land increased slowly, and rents were actually rising; labor and capital were rapidly increasing in quantity, and interest seemed to be declining to a minimum, while wages appeared to manifest a tendency to approximate the barest needs of the laboring population. It was, therefore, natural to assume that the quantity of land is fixed for all time, and that labor and capital are capable of indefinite increase. The assumption that the quantity of labor remains unchanged while capital or land increases would have seemed then an utterly fruitless one. It would have been hopelessly abstract even for Ricardo.

But as we have seen, the land which remains unchanged in quantity is geographic, not economic land; yet it is the latter which alone has significance in economic theory. And economic land may increase quite

independently of any corresponding increase in capital or labor.[1] Moreover, recent theory has been compelled to abandon the notion that the minimum of subsistence fixes the standard of wages, or that any immutable law fixes a stationary return to capital. Accordingly it is not an absurd assumption that the quantity of land varies while capital and labor remain stationary.

We may conceive of Von Thünen's isolated state annexing, by means of improved transportation, a great area of waste, which thus becomes economic land, not inferior in fertility and effective situation to the lands nearer the metropolis. Assuming the economic fluidity which we always assume when we discuss the effects of increase in capital or labor, we should see each establishment, agricultural or manufacturing, adding new acres or front feet, employing its stationary quantities of capital and labor upon greater areas of land. As the additional units of land are successively taken into these establishments, we should see their productivity gradually decline. No acre could receive for its owner a greater return than the product of the last one of the same degree of productiveness. The greater productivity of the earlier acres would at first appear as a profit in the hands of the entrepreneur; but competition would soon make it over to the stationary factors, capital and labor. Thus we should have a differential series in which the "earlier" units of land appear to be more productive than the "later." This series is precisely analogous to that which is connected with the earlier "doses" of capital and labor, when those factors increase and land does not.

No doubt, under the conditions assumed, the increase in wages and interest would react upon the supply of

[1] *Supra*, p. 38.

labor and capital, and hence would tend to restore the original quantitative relations. But the reaction would not necessarily equal in force the primary dynamic phenomenon, increase in economic land. It must be remembered that high rents, due to relative increase in capital and labor, have a similar influence in increasing the quantity of economic land. In either case there is no reason why the primary dynamic influence would not result in new and higher standards of permanent income.[1]

It is quite conceivable that the birth rate may so decline that population will remain practically stationary during the next century. At the same time capital may increase indefinitely, owing to the greater degree of security and the development of thrift in the general population, and improvements in transportation may greatly increase the amount of effective economic land. Under such circumstances wages would doubtless continue to rise, while the rates of interest and rent would unquestionably fall. In that case it would be natural to regard a great part of wages as a differential on early increments of land and capital. It would be perfectly natural that theorists, in order to give perfect consistency to their systems, should assume a time when labor was for economic purposes unlimited, and explain the whole of wages as a differential on the earlier units of land and capital. Such an assumption would, of course, be historically untrue, but not much more untrue than the classical assumption of unlimited economic land. In every age there have, indeed, been areas of unused land which could be turned to economic account; but so also have there been classes of workmen unemployed. In either case there was either a temporary misadjustment, or the technique and the control of complementary

[1] *Cf. supra*, chap. i, sec. 8.

factors was not such as would permit of the economic use of the unutilized agents.

SEC. 31. If, then, one of the factors of production is so constituted by nature that it remains relatively stationary in quantity during an indefinite period of dynamic change, it will be quite correct, according to the principles of economic logic, to regard its income as peculiarly subject to the dynamic differential analysis. It would be quite irrelevant that the same analysis could be applied to the other factors by assuming that they in turn remained stationary in quantity while the actually changeless factor increased. Assumptions which are not in some degree generalizations from reality may be employed as a foundation for fictitious logical constructions, but will not assist in the discovery of truth.

Whether the rent of land shall be regarded as a differential income depends, then, upon the question whether or not economic land is capable of increase independently of a corresponding increase in capital. The claim has been advanced in the second chapter of this essay that land is capable of such increase; therefore it is maintained that logic requires the application to capital and labor of the same analysis which is usually applied to land alone. Rent is not characteristically differential from the dynamic any more than from the static point of view.

But while each of the factors of production, treated as a whole, is capable of increase, there are certain forms of labor, capital, and land that remain practically unchanged in quantity. These are usually forms that are specialized to a single use—the monopoly goods of Wieser's analysis. Every increase in the demand for the commodities produced by their aid will tend to

change the quantities of mobile productive goods employed in combination with them, and consequently to increase their share in the physical product. Growth in the quantity of the mobile factors will likewise change the proportions of combination with these immobile factors, and will consequently increase the share imputable to them. The return to such "monopoly goods" will therefore be most naturally measured differentially upon the successive units of mobile agency applied to them. Moreover, the productivity of the mobile productive goods is tested in general industry; that of the monopoly goods must be discovered in the isolated combinations in which they occur. And this may be done either by returning the mobile factors to general industry and thus discovering how much value is lost by leaving the monopoly goods unemployed, or by estimating the product of the mobile goods marginally and treating the return to monopoly goods as a residuum. The residual test is, of course, the natural one.

If we consider what concrete forms of productive agency answer to this description, we shall find, indeed, many forms of land, especially land which is peculiarly adapted for certain uses in commerce and industry. But we shall also find numerous forms of capital and labor that for one reason or another do not respond to dynamic influences that affect the general mass of these agents. It is true that such forms of land are likely to retain their monopoly position for a longer period than like forms of capital and labor; but we must remember that at all times there is a complex of capital-goods and of labor which holds a similar position. If, then, we wish to retain the designations "differential" and "residual," we shall probably find it most expedient

to apply them to the return to the strictly monopoly factors, whether forms of land, labor, or capital.

The customs and laws of land tenure have a tendency to confuse ordinary land, which is mobile in the economic sense of the term, with the monopoly goods of the foregoing discussion. A great proportion of the entrepreneurs of modern society find it a simple matter to increase the labor and capital under their control, while to rent or purchase additional land involves a considerable amount of friction. To vary the amounts of capital and labor employed with a given quantity of land is a more frequent procedure than to vary the quantities of land with a fixed amount of capital and labor. The conception of land as a fixed quantum and of capital and labor as variables thus gains an established position in the business consciousness. But it is clear that many forms of capital (*e. g.*, a ship or a building, and many forms of labor, such as that of a business manager) share this characteristic with land. It is also clear that the friction which gives rise to such a characteristic is not sufficiently important in modern industry to serve as a basis for a theoretical distinction between sources of income.

CHAPTER V.

THE RELATION OF RENT TO PRICE.

SEC. 32. There is hardly any subject in economic theory that has been more voluminously discussed than the relation of rent to price. The problem, though involved, can hardly be called one of the most intricate with which economics deals; and it would, therefore, be presumptuous to undertake to add much that is new to the existing controversial material. Yet so long as eminent economists of one school assert that rent obviously bears a relation to price quite different from the relation to price borne by wages and interest, while equally eminent economists of another school assert with equal confidence that in this respect rent does not differ from the other two forms of normal income, it cannot be a wholly superfluous task to examine the premises and the reasoning which lead to the assumption of positions thus diametrically opposed.

A history of the doctrine of rent which we associate with the name of Ricardo would be little more than an enumeration of the names of economists who have subscribed to it. In the form in which it left the hands of Ricardo it appears practically unchanged in all classical economic writings down to the time of Walker, whose statement we may accept as typical.

The normal price of any commodity is fixed by the cost of the production of that part of the supply which is produced under the most disadvantageous conditions. The cost of that part, whatever that cost may be, will determine the price of all other portions, no matter how much more favorable the conditions under which these may be produced. Applying this principle to a single agricultural crop, *e. g.*, wheat, we say that the normal price of wheat will be fixed by the cost of raising it upon the least productive soils which are actually cultivated for the supply of the market. . . . But if the price of

the whole crop of wheat is to be fixed by the cost of raising it on the least productive soils actually cultivated, then rent is not a part of the price of agricultural produce, since the least productive soils pay no rent; and therefore rent cannot be part of the price of the wheat raised therefrom, and if not of this wheat, then of no wheat, since, as we have seen, the price of the whole crop is fixed by the cost of that portion which is raised on the no-rent land.[1]

A history of the criticism of the Ricardian doctrine of rent would be somewhat less monotonous than a history of the doctrine itself, since the range of ideas is greater. Yet the points of view of the critics of the doctrine of rent are easily classified. Apart from the attacks of Carey, which spent their force upon a minor detail, the order of cultivation, we find three principal lines of criticism: (1) The poorest land in cultivation may yield a rent, and therefore a part of rent is a constituent element in price. (2) Portions of the supply yield no wages, and other portions pay no interest; therefore the reasoning which is relied upon to prove that rent does not enter into price would prove that neither wages nor interest enter into price. (3) Rent is in the last analysis a portion of the total product of industry, and only secondarily a money income. The existence of rent in its primary form is of the utmost importance in determining price.[2]

[1] Walker, Land and its rent, 27.

[2] A number of objections to the Ricardian doctrine which do not appear in this classification have been presented by Professor Patten in his "Premises of political economy," pp. 21–45. Many of them do not appear to hold when the Ricardian doctrine is broadly interpreted. As a case in point we may cite the sixth count brought against Ricardo (p. 44), namely, that land may remain in cultivation even when the return is not sufficient to pay all costs in labor and capital, including under capital improvements fixed in the soil. This would be a reason for holding that the return to certain kinds of capital may be regarded as a "quasi-rent," to use Professor Marshall's expression, but it does not in itself necessitate any essential modification of the doctrine of rent.

SEC. 33. The first criticism was not entirely overlooked by Mill,[1] it was advanced as an important qualification of the Ricardian theory by Professor Patten in his "Premises of political economy,"[2] and has since become familiar to all students of economics. The poorest land in cultivation is almost certain to yield a rent, since such land has some value for other purposes—pasturage, the chase, the growing of timber. Price must accordingly be sufficient to pay such "marginal rent," as well as wages and interest. More important is the corollary of this proposition, which shows that the rent of land for agricultural purposes must be counted as a part of the cost of the products of a market garden; or, to put it in general terms, rent in any use must be sufficient to keep the land from falling into the best alternative use.[3] If we are permitted to reduce all land to wheat fields, it is necessary to take into account the fact of marginal rent only. But a study of price is a study of relative value. In an investigation of the laws governing the price of wheat little can be gained by ignoring the essential price relations between wheat and other agricultural products. It would be manifestly absurd, in order to determine the laws that govern wages and the price of the product of labor, to assume that all labor produces shoes. If it should be proved, upon such an assumption, that wages do not enter into price, the proof would be valueless, as the premises vitiate the conclusion. It is needless to repeat the argument which shows that the assimilation of all kind of land to wheat land gives equally worthless results.

But the modern defender of classical doctrines, while admitting that it is an essential fact of the problem that

[1] Mill, Principles of political economy, book 3, chap. 5, sec. 2.
[2] p. 22.
[3] Jevons, Theory of political economy, 2d ed., preface.

land enters into various employments, and that in many branches of industry rent is paid for the poorest land used, would still deny that rent enters into the price of the most expensive and price-controlling portion of supply; and he would point to the well-known intensive law of rent as a sufficient defense of his position. If capital is applied in successive doses, one dose will be found which yields a return only sufficient to cover the cost of the labor and capital employed. Consequently there is a portion of supply which pays no rent.[1]

SEC. 34. The logic of the intensive law of rent has recently been called into question by several economic writers. It is said to overlook the organic nature of industry, and to imply a misadjustment which involves a denial of the theoretically free competition upon which the argument is based. For the first objection we may quote Hobson, who rejects entirely the notion that the productivity of a final unit of any agent is determinable.

> It is claimed that the product of the last dose of labor is to be measured by the reduction in the aggregate product of the farm which would have attended the refusal to apply this last dose of labor. Now this is not justifiable. The withdrawal or refusal to apply this last dose of labor would have meant a diminished productivity not only of the other units of labor, but of the units of capital and of land, and part of the result of this diminished productivity of other units is wrongly attributed to the last unit of labor.[2]

Now this would be quite true if the "last dose" is defined loosely enough. If, for example, the dose of capital which is withdrawn from an acre is a bushel of the wheat that would normally be sown, a part of the loss would indeed be due to the sterilization of the uses of land, labor, and other capital employed. But careful economists, in assuming that a "dose" is withdrawn, also

[1] *Cf.* Marshall, Principles of economics, 3d ed., p. 475 *et seq.*

[2] Hobson, Economics of distribution, p. 145.

assume that the best possible rearrangement of the remaining productive goods is made, so that only a slight deterioration of all of the forms of the agent in question takes place.[1] It may be that the effect of the addition of a final unit of capital is simply to increase the efficiency of existing goods. Its physical product may be organically related to that of the other elements in production, but this fact does not make its economic productivity less distinctive.

In the same chapter Hobson advances the claim that the premises upon which the intensive law of rent is based involve a previous misadjustment of the factors, thus discarding the principle of free competition without which the whole doctrine is meaningless.

If a tenant hires a piece of land and puts five doses of capital upon it when he ought to have put six, he pays a rent based on the assumption that he will make a full economic use of the land, *i. e.*, that he will put six doses on it. If, discovering his error, he afterwards adds the sixth dose, he only appears to pay no rent out of its produce, because he has all the time been paying a rent based upon the supposition that he was working the land with six doses.[2]

The truth is that a certain harmony of combination of factors of production exists for various productive purposes. In a given case a certain proportion of the three factors of production is most productive. If, however, there is a short supply of one of them at the former quality and price, a more than proportionate increase of one or both of the others may be substituted, involving, of course, an increased cost per unit of the increment of supply.[3]

Now it will be admitted that at any given time such a "harmony" exists, and that under the assumption of perfectly free competition no individual will be enabled to vary the productive combination without loss *until some dynamic change in industry takes place.* But if capital increases, the best possible proportions of the factors throughout industry change

[1] Clark, The distribution of wealth, p. 246 *et seq.*

[2] Hobson, Economics of distribution, p. 141.

[3] Hobson, Economics of distribution, p. 137.

also. Free capital is in the market seeking bidders, and under the assumption of free competition it will get just what it adds to industry. It will add less than the former product of like units, because the adjustment existing before the increase in capital implied that in each industrial plant additional units of capital would create a less than proportionate return, and increase in capital would not change this fact. The new capital will, indeed, affect in a very slight degree the productivity of all other units of capital, lowering their return; it will likewise increase the product of all units of labor and land. But these changes cannot take place until it has been ascertained how great a total net increase is due to the new capital. No deduction from that product is made for rent; increase in rent arises from an apparent deduction from the product of other units. There is, therefore, a portion of the supply into the price of which rent does not enter, and that portion actually appears whenever dynamic changes take place.[1]

It is true that if the new units are applied successively, those which are applied first must pay a rent. Moreover, if the final unit is divided into two smaller units, it will appear that a rent is connected with the one which is theoretically first. From this it has been argued that the rentless unit must be infinitesimal, *i. e.*, no unit at all.

No finite unit of product can be shown to be a no-rent unit in the theory of the intensive application of labor and capital with regularly diminishing returns. The concrete units are produced at varying

[1] This does not mean that the no-rent portion of supply *exists* only when a dynamic change is taking place. An individual producer can economically make an experiment which will demonstrate the productivity of unaided capital or labor only when new social units of these agents are distributed for employment.

costs for labor and interest on capital, and every one contains an element of rent.[1]

The argument does not, however, seem to be valid from a strictly mathematical point of view. While we cannot conceive of marginal units of labor and capital which are so small that they cannot be divided, and cannot therefore directly conceive no-rent units, a consideration of the relation between the part of the apparent product of a marginal unit of labor and capital due to the labor and capital and the part really due to land will show that as the unit diminishes in magnitude, the ratio of the rent to the labor-capital product constantly grows less. Since this is the case, it is quite legitimate to conceive of the former quantity as becoming infinitesmal while the latter remains finite. To dispute this would be to deny the validity of practically the whole body of theoretical economics, as well as of that part of mathematics into which the Theorem of Limits enters.

There appears, then, to be no reason for denying the validity of the intensive law of rent. There are portions of the supply into which rent does not enter, although such portions appear only when a dynamic change takes place. Even though all units of capital are given equally favorable positions in combination with land, there is yet a unit of product, created by all the units conjointly, which pays no rent.

SEC. 35. To admit this, however, does not compel us to subscribe to the doctrine that rent does not enter into price. For it has been proved conclusively that portions

[1] Fetter, The passing of the old rent concept, *Quarterly Journal of Economics*, vol. xv, p. 439. In a footnote Professor Fetter disclaims any intention of disputing the validity of the method of increments in economic theory, claiming that this is a misapplication of it. The grounds for the difference between this and other applications is not apparent.

of the supply of commodities are produced without the economic aid of labor or of capital; yet it would be absurd to deny that wages and interest form elements in price.[1] There are units of commodities which are virtually produced by labor and capital alone. Some of these units are produced by much labor and little capital; other portions cost a great deal of capital and but little labor. Some units are created at an expense, say, of five units of labor and twenty of capital; others may cost five units of capital and twenty of labor. No economist, however, would affirm that these units are produced at unequal costs, because he would not start with the assumption that the use of either capital or labor is not a cost. If there is a portion of supply which is produced by twenty-five units of labor, unaided by capital, it would not follow that this portion is the most expensive, since increased cost in labor is offset by diminished cost in capital.[2] From this it is clear that those units of supply into which rent does not enter can be considered the most expensive ones only in case it can be shown independently that rent, or more properly the use of land, is not a cost. Accordingly, it is not an injustice to the classical economists to affirm that the argument by which they sought to prove that rent is not an element in cost assumed the conclusion in the premises.

Economic theory deals with three main forms of cost: (1) subjective cost, consisting in the pain and discom-

[1] Clark, Distribution of wealth, p. 360 *et seq.;* Hobson, Economics of distribution, p. 133 *et seq.;* Fetter, The passing of the old rent concept, *Quarterly Journal of Economics*, vol. xv, p. 437 *et seq.*

[2] Those economists who hold that the different agents combine, economically, in fixed proportions in each branch of production will see a gross misadjustment premised in this illustration. For my defense, *cf. supra*, sec. 30.

fort attendant upon production; (2) entrepreneurs' cost, consisting in payments which the business man must make in order to place a commodity upon the market; and (3) social cost, consisting in the destruction of the commodities, or limited uses of commodities, which are at the disposal of society.

Subjective costs evidently exercise influence upon price through affecting the supply of productive agency. In a dynamic society capital is increasing, and therefore the influence of subjective cost everywhere manifests itself in checking the growth of capital. Economic land is also increasing, and the fact that increase entails subjective cost makes it clear that such costs limit supply and influence values.[1] In a study of the relations of productive agency to price, limitation is, however, the fundamental factor; and whether or not limitation is due to subjective cost is a matter of secondary importance. It is quite conceivable that through a process of adjustment, subjective cost to the laborer might become quite negligible,[2] and that capital might normally be saved under condition that no disutility would be involved. But so long as the quantities of labor and capital remain limited, these agents can still demand and receive, under competitive law, a part of the product of industry; and the relative payments for labor and capital will appear in relative prices. In the same way,

[1] It may be said that when once new land has been brought under cultivation, the fact that a subjective cost was originally connected with its utilization does not act to limit the use of its services. If society should become static or retrogressive, land would not be limited by reason of such cost once incurred. We are considering, however, the relation of subjective cost to supply of land, and hence to price, under existing conditions, and under existing conditions it is obvious that the cost of annexing and utilizing new areas is a limiting factor, exerting an influence upon absolute values.

[2] Patten, Theory of prosperity, 8.

even if subjective costs no longer exerted an active influence on the supply of land, land would still be limited, and its income would appear in price, as will be seen later.

The relation of rent to entrepreneurs' cost need not be discussed at length, since it is not disputed by any important modern economist that to the individual entrepreneur rent is an outlay similar to wages and interest. The farmer who is unable to pay the prevailing rate of rent for the land he uses is as surely driven out of business as one who cannot pay the ordinary rate of wages or of interest. Social customs may, indeed, treat wages and interest as preferred shares in distribution; but this is not necessarily true, nor is it normally the case in our present society. The rent is fixed before the productive process begins; if any loss occurs, it falls upon interest, or even upon capital.

It remains to consider the relation of rent to social cost—whether the use of land for which rent is paid is a cost from the point of view of society, in the sense in which labor and the use of capital are costs. We must consider whether, to employ Wieser's expression, the administrators of a communistic state would be held as strictly to account for the use they make of land as for the use of capital or labor force.

Social cost, so far as it is conceived as not merely collective subjective costs, is relative in its nature. A workman represents a possible amount of social service; and when we consider the cost of a commodity to society, it is necessary to take into account as part of cost this possible service of laborers engaged in its production. A commodity which requires the services of an efficient workman obviously is more costly, from the point of view of society, than one which requires an

equal number of days' work of a workman who is inefficient, even though the latter may suffer far more subjective cost than the former. Cost in this sense is reckoned ultimately in terms of utility, since every increase in the power of labor to produce utility makes the services of labor count as higher cost.

In a static state costs of this kind would have so close a dependence upon values that the terms "high" or "low" social cost would convey no meaning. Every unit of labor, capital, or land would be placed at the point where its productivity is highest; and the loss occasioned by its withdrawal would have no other measure than the immediate loss in utility. Commodities having an equal utility would have equal social costs. In a dynamic society more units of productive agency may be used in the production of one commodity than in the production of another commodity of equal value. The former may then be said to have a high relative social cost. Now it is obvious that the high cost may be the result of a disproportionate employment of capital, just as well as of a disproportionate use of labor. Exactly the same thing is true of land. Any unit of land represents a quantity of possible social service; and in reckoning the relative cost to society of different commodities, the quantity of land-use withdrawn from general industry must be counted in the same way as the quantity of labor and capital. The commodity produced with a disproportionate use of land has a high social cost, just as the commodity produced with a disproportionate use of labor or capital. One misadjustment is as costly as the other.[1]

It appears, then, that from whatever point of view we choose to consider costs, rent or the use of land does not

[1] *Cf.* Wieser, Natural value, p. 207 *et seq.*

differ from wages and interest, or the use of capital or labor force. Under the assumption of free competition and private ownership of land and capital, it is illogical to affirm any difference between the relation of rent to price and the relation to price of wages or interest.

SEC. 36. Yet it would be unreasonable to claim that a doctrine so deeply rooted as is the Ricardian theory of rent can be thus easily disposed of. There remain other factors in the problem which may be best considered in treating the third line of criticism, namely, that the primary form in which rent appears is as a concrete share in the product of industry, as a portion of supply, just as wages and interest are primarily shares in the product.

As money or "real" incomes, wages and interest and rent consist in the wealth given in exchange for such primary shares in industrial product. Thus regarded they have an effect upon price very different from that which is ordinarily considered. As portions of the entire supply, their absence would cause a rise in price. In this sense there is no difference between rent on the one hand and wages and interest on the other.

> The real rent of land, as of everything else, consists in goods that the land virtually creates, and these enter into the supply of such goods and help to determine their value. . . . The rent of land, then, as the concrete product imputable to land, is emphatically an element in determining value.[1]

The modern Ricardian would probably admit that from one point of view concrete incomes are products. Yet it is only in a static state that it is possible to identify product with actual shares in the distribution of wealth. Now it is not wages as product, but wages as an actual income, that are supposed to have a controlling

[1] Clark, Distribution of wealth, p. 356.

influence over price. The entrepreneur may withhold a part of the product of labor, in which case we may still call it wages, or better, part of the wages fund, and it will form a part of the supply in the same way in which rent forms a part of the supply, and so will affect price in the way in which it is here claimed that rent affects price. But the wages that are not withheld by the entrepreneur perform a double function. They distribute the wealth that has already been produced, and they serve to show the laborer what he can expect from future production. The disposition of the wages fund of this year may not have much influence upon the supply of wheat of this year, but it will certainly influence the supply of next year. If the workman has been exploited, there will in the future be fewer workmen in the wheat industry. Prices and incomes thus distribute the fruits of present and past production, and distribute productive forces for future production. It is through the distribution of labor that wages influence prices.

If the laboring classes were paid barely enough for subsistence, a lowering of wages would have a further effect on prices, since it would diminish the total supply of labor. But in a society such as our own, it is obvious that a considerable reduction of general wages would not necessarily affect the supply of labor.[1] It is accordingly through the relation between wages and the distribution of labor that wages can properly be said to influence price. It is only by postulating a state in which labor is absolutely free to move from industry to industry

[1] A general decline in money wages would no doubt reduce the effective supply of labor even under present conditions. But a decline in real wages, due to a general rise in the price of commodities consumed by the laborer, would hardly diminish the number of workers of the present, or materially check the growth of population.

that we can say that wages in their entirety "enter into" price.

But if instead of postulating a state in which labor is free and mobile—an exceptional and possibly transitional state, if the history of mankind is taken into account—we postulate a condition of society in which a rigid caste system distributes labor independently of income, wages might fall in any industry without reducing the supply of labor. While at first laborers would perhaps refuse to work at all, or would work without much zeal, the need for subsistence would drive the existing body of laborers to work as before in spite of lower wages. So long as the minimum of subsistence were not impaired, a fall in prices could not be prevented by any existing rate of wages. As soon as the price of any product fell so low as to reduce wages below that minimum, the volume of labor in the industry would automatically diminish until prices would rise sufficiently to afford the minimum wage. Under the assumption of wholly immobile labor, then, the minimum wage would alone have the power of fixing prices. Instead of making the comparatively mild assumption of a caste system, we might assume that all labor is of the same quality and produces nothing but shoes. A fall in the price of shoes could not be hindered by labor cost until the subsistence minimum had been impaired for at least an appreciable margin of labor.

In either case it is obvious that the minimum of subsistence would not necessarily be the normal wage, if mobility of capital is assumed, and if capitalists are free to compete with each other for the employment of labor within any particular employment. Neglecting for the present the share assigned to land, we may say that in

each branch of industry capital would earn normal interest, and the residue, whether great or small, would go to labor. Except in those employments in which that residue actually afforded a mere minimum of subsistence, prices would rise and fall quite without regard to the wages usually paid. Wages would appear to be price-determined, not price-determining.

SEC. 37. We see, then, that the extent to which wages may be said to enter into price depends upon the degree of mobility that we assume. Where labor is absolutely fluid, it is true, in a modified sense, that the whole of wages enters into price. Where labor is quite immobile, only the subsistence minimum can be said to have any permanent influence in determining price. The same reasoning would obviously apply to capital. If classes of individuals were compelled to invest any capital which they might possess in some particular industry, a fall in price would not necessarily affect supply until it had caused a slackening in the rate of accumulation, or had brought about the consumption of existing capital. When the capitalist is free to invest his capital in any one out of a number of industries, a fall in interest causes an immediate migration of capital. Under the former assumption, the units of capital which bring influence to bear upon price are those which are saved with the greatest difficulty. Under the latter assumption, the units which hold the strategic position are those which find the least difficulty in migrating to other employments. In a competitive economy it is mobility that exercises actual control over prices.

The only reason why it has seemed worth while to consider the effect upon wages and interest of complete immobility of labor and capital is that in expounding the Ricardian law of rent we are accustomed to make

assumptions of much the same nature. If we assume that land is absolutely immobile, we must indeed admit that its actual income has no power to determine price. Its strategic position is worse than that of labor and capital, inasmuch as there is no minimum below which rent cannot fall. If all the land that is capable of growing wheat is capable of growing nothing else, a fall in the price of wheat will act upon supply only through the reduction of income to labor and capital, although a reduction in rent will take place contemporaneously. If we assume that each kind of land is specialized to a single use, rents will rise or fall with prices. Land will have no power to prevent such changes in its income. Assuming as Ricardo did that all land yields nothing but corn, the landlord would clearly have no escape from a fall in rents. He would be reduced to the position of a passive recipient of whatever might be left by the mobile elements in production.

It appears, then, that the distinction between rent on the one hand and wages and interest on the other rests ultimately upon the assumption of immobility of land and mobility of labor and capital. Labor and capital are assumed to be subject to competitive law; land is assumed to be withdrawn from the field of such law. It would be a shallow argument which would treat such a discrepancy in assumptions as bad logic. If the facts of industrial life show that land is far less mobile than capital and labor, it is quite legitimate to assume immobility of land while assuming perfect mobility of labor and capital. Such assumptions will not serve as a basis for absolutely correct conclusions, but they will make possible generalizations which are approximate descriptions of reality.

It has already been argued at some length that

land is in reality mobile in the same sense in which labor and capital are mobile; and the burden of proof lies with those who would hold that it is mobile in less degree. In the case of labor and capital, power over price is exercised through marginal mobility. It is not the worst labor nor the poorest capital which holds the position of greatest influence upon price; it is undifferentiated labor and capital in the form of pure purchasing power. If prices fall in a given industry, it is possible that a few of the poorest workmen will starve and that increase in population will be slightly checked. It is also possible that a few marginal savers of capital, accustomed to invest in this particular industry, will consume their capital. But it is obvious that an immeasurably greater influence on price is exercised by the laborers who are free to migrate to other industries and by the capital which is in a position to change its employment.[1] The mobile portions of labor and capital form in reality only a small fraction of the total supply. Now it is here maintained that there is a part of the total supply of land which is so situated that it admits of alternative uses; and that portion is sufficiently considerable to endow land as a productive agent with mobility and to give it the rank of a price-determining factor. There is doubtless land specially adapted to single uses and unrelated through margins to land possessing alternative uses; there is also labor and capital in the like position. These immobile forms of productive agency—the "monopoly" goods of the last chapter—can alone be said to receive price-determined incomes. Under conceivable historical conditions, rent would not "enter into price;" but under the conditions

[1] *Cf.* Patten, Theory of prosperity, 46.

of modern industry there is no satisfactory reason for treating rent in its entirety as a price-determined income. Ordinary land shifts from employment to employment, seeking the highest possible reward; and in so doing it affects the supply of different commodities and exercises a controlling influence upon price.

CHAPTER VI.

RENT, PROFIT, AND MONOPOLY RETURN.

SEC. 38. In the foregoing chapters attention has been devoted exclusively to the relation between rent on the one hand and wages and interest on the other. In the present chapter it is necessary to consider the relation of rent to profit and monopoly return. The task is rendered difficult by the fact that economists are very far from an agreement as to the nature of profit and as to the distinction between profit and the gains from monopoly. Both forms of return, however, represent an excess of income from production above entrepreneurs' cost; and profits may be provisionally distinguished from monopoly return on the ground that the latter income possesses a degree of permanence which the former lacks.

Early economists paid little attention to the concrete form of income which most modern writers now agree in calling monopoly return. Adam Smith, indeed, recognized as monopolistic some of those sources of income which we should now class as legal and customary monopolies, and his earlier followers made certain allowances in their theories for monopoly phenomena. The first thoroughgoing analysis of monopoly, however, appears in Senior's "Political economy," which draws attention to the numerous forms in which monopoly return may exist. Senior agrees with his predecessors in regarding rent and monopoly return as closely related incomes—a point of view which has never lacked defenders.

There are in general three reasons advanced by the

classical economists for classifying rent with monopoly income: (1) land is a monopoly because its value does not correspond to the cost of improvement; (2) land is a monopoly because it is limited in quantity; (3) the return from land is a monopoly income because it implies no subjective cost. Adam Smith may be selected as a representative of the first view, Malthus of the second, and Senior of the third.

> The rent of land, considered as the price paid for the use of the land, is a monopoly price. It is not at all proportioned to what the landlord may have laid out upon the improvement of the land, or what he can afford to take, but to what the farmer can afford to give.[1]

> That there are some circumstances connected with rent which have a strong affinity to a natural monopoly, will be readily allowed. The extent of the earth itself is limited and cannot be enlarged by human demand. The inequality of the soil occasions, even at an early period of society, a comparative scarcity of the best lands, and this scarcity is undoubtedly one of the causes of rent properly so called. On this account, perhaps, the term *partial monopoly* may be fairly applicable to it.[2]

> The fourth and last class of monopoly exists where production must be assisted by natural agents, limited in number and varying in power, and repaying with less and less relative assistance every increase in the amount of labour and abstinence bestowed on them.[3]

The reason which Senior gives for classifying with monopoly production thus aided is that a greater value is produced than by an equal amount of *labor* and *abstinence* in general industry.[4] These "natural agents," Senior explains later, consist chiefly in land. But that part of wages which exceeds the average remuneration of labor is also to be classed with the return to natural agents.[5]

[1] Smith, Wealth of nations, I, chap. xi.

[2] Malthus, Political economy, 140. For an identical modern view see Macfarlane, Value and distribution, 123.

[3] Senior, Political economy, 105.

[4] Senior, Political economy, 103.

[5] Senior, Political economy, 130.

The above grounds for classifying rent with monopoly income do not, however, appear to be valid, since similar ones would make a monopoly income of wages or of interest, and no one would deny that these incomes when normal differ fundamentally from that which is secured through monopoly.

In the first place we may admit that the value of land does not correspond to the cost of improving the land; but if we were to capitalize the earning power of labor so as to make labor strictly analogous to land, we should find that there is no law that makes the value of the laborer correspond with the outlay in bringing him up. The value of a capital good may tend to equal the entrepreneurs' cost of production, but the value of the pure capital that the goods embody bears no direct relation to entrepreneurs' cost; and it is the relation of pure capital to interest that must be compared to the relation of land to rent. The fallacy of the position is due to the attempt to apply the laws of the normal valuation of finished commodities to one of the permanent agents of production. In the second place it is quite true that rent is due to the fact that land is limited relatively to the demand for its services, but limitation is just as essential if labor or capital are to possess earning power. Partial limitation of the better classes of labor is the cause of the higher productivity of such labor, yet we should feel that it is to use words in a new and strained sense to say that all labor except the very lowest kind receives a monopoly return. Finally, disregarding the question whether the landowner endures subjective costs or not, we may question the usefulness of a classification of income based upon subjective costs, a classification that would make a large part of the income of a laborer who is properly adapted to his calling a monopoly gain,

while classing with wages the income of another who performs the identical economic operations, but who is so ill adapted to his calling as to endure extraordinary fatigue and pain. With such a classification one would be forced to adopt Professor Patten's view that when society shall be properly adapted to its environment, all income will be monopoly income.

SEC. 39. In modern economics no definition of monopoly has been agreed upon;[1] consequently it would be idle to search for an accepted definition of monopoly return. The conception of monopoly profit or net revenue is, however, sufficiently familiar. Manifestly not all of the income of a monopoly, but that portion alone which could not be secured without a control over prices is to be counted as monopoly return.

Monopoly control over prices depends, in almost all cases, upon the power to determine the amount of productive agency which shall assist in supplying a given want in a market of greater or less extent. When any entrepreneur finds himself in a position to treat the price either of finished products or of productive agency as a variable quantity, appreciably influenced by his actions, he has the power to manipulate prices so as to secure a net return. If wages, interest, and rent are practically fixed data, his income results from the raising of prices and the consequent exploitation of the consumer; if prices are practically fixed, monopoly gain must be subtracted from the earnings of industrial agents.

Although there are numerous circumstances under which the gains of monopoly are virtually extorted from

[1] Professor Ely, Monopolies and trusts, p. 14, defines monopoly as "substantial and controlling unity of action." The definition is, perhaps, the most satisfactory we have, but it hardly covers all the phenomena that most would consider monopolistic.

the consumer only, monopoly return is in a strict sense the product of labor, capital, and land, and is diverted from the owners of these agents to the profit of the monopolist. The person who holds monopoly control over a commodity may not endeavor to lower the prices paid for productive agency. He may even pay for the use of productive agents a higher rate than that which prevails in the general market. It is, however, obvious that the method by which the monopolist operates is to limit the amount of productive agency in a given branch of industry; and in this way he increases the productivity of each unit. From the enhanced productivity of the several units the monopolist secures his revenue. To illustrate this we may assume that a unit of labor is withdrawn from a monopolistic industrial establishment, and not replaced by labor from outside of it. The net loss, after deducting whatever may be due to the attendant dislocation of industry, will manifestly exceed the net loss which would result from the withdrawal of a similar unit from a competitive branch of industry.[1]

Thus it appears that this particular form of monopoly gain is exploitative,[2] in a sense, since it is a product

[1] There are circumstances under which this is apparently untrue. The Standard Oil Company may have men engaged in the manufacture of dyes who are making merely competitive wages. "Every monopoly has some men employed in positions that yield the same net return as do the exposed industries with no monopoly." (Patten, Theory of prosperity, 72.) This merely signifies that an establishment which is monopolistic in some of its enterprises is not monopolistic in others. The manufacture of dyes may be carried on competitively by the Standard Oil Company because it does not interfere with the market for its monopolized produce. To withdraw a workman from such subsidiary enterprises would not result in loss of monopoly gain, but it would not, in reality, be the withdrawal of a workman from the monopoly.

[2] Exploitation, as the term is used in this chapter, conveys no ethical significance. Whenever a productive agent does not receive the product which it creates, it is exploited in this sense of the term.

which is not secured by the agent which creates it. Labor, capital, and land produce the monopolists' net revenue. In any particular establishment they are not necessarily injured by it, since they may still receive a normal or more than normal return.[1] When, on the other hand, prices of finished commodities are not subject to control, but prices of productive agency are, exploitation of the same character takes place, but to the immediate and manifest injury of productive agency.

But there is another form of monopoly income which has been touched upon in the above section, the producers' as contrasted with the entrepreneurs' gain. If laborers, by combination or by control over public opinion or government, are able to exclude men potentially of equal efficiency from their employment, they may maintain a higher degree of productivity than workers in general industry, and may retain the abnormal income for themselves. Under these circumstances it may be that no direct exploitation of any producer takes place. Workers throughout society may gain what they specifically produce. The effect of the producers' monopoly

Ethically, the owner of a productive agent has a clear right to its product only if his claim to the agent is uncontested, and if its productivity is not affected by wrong or favoritism in the distribution of units of agency. The laborers who combine to exclude others from a profitable industry gain an increase in wealth which is counterbalanced by a greater loss on the part of excluded laborers, and it would not be straining the usual meaning of the term to say that the excluded laborers are exploited. But it is necessary to have terms which will distinguish between the income based upon the productivity of units of agency in one's legal possession and income appropriated by parties in distribution other than the owners of the productive agents that create it. The former income is here classed as productive, the latter as exploitative.

[1] Of course the ultimate effect upon productive agency is unfavorable, since the units arbitrarily excluded from the monopolized branch must seek employment elsewhere, thus abnormally lowering income to labor, capital, and land.

upon the consumer and upon productive agency which is excluded from the favored position does not differ from the effect of the entrepreneurs' monopoly upon the consumer and the outside producer. The distinction between the two forms of monopoly return lies wholly in the distribution of it within the group. If it is secured by the entrepreneur, we may properly term it monopoly profits; if it is shared by labor, capital, and land, these agents may be said to secure monopoly wages, interest, or rent, as the case may be.

Now with what one of these forms of monopoly gain are we to compare rent? It is obvious that an entrepreneur who possesses a monopoly will find it necessary, if he wishes to manipulate prices of finished commodities, to limit the amount of land which he uses, as well as the amount of labor and capital. The withdrawal from his employment of a unit of land will often result in a greater net loss in goods, measured in terms of value, than the withdrawal of a unit of similar land from competitive industry. The land is abnormally productive, and the surplus productivity is appropriated by the monopolist. If, however, the monopolist manipulates the price of productive agency instead of that of finished commodity, the land may be paid at abnormally low rates along with the labor and capital. Again, if a united group of landlords control a given crop and limit the area on which it is grown, the land may be made to yield an exceptionally great value-product for its owners, in which case the land is in a monopoly position, similar to that of the trade-union laborer. There may, then, be land which yields a return quite different in its nature from rent, and exactly analogous to the monopoly return secured through labor or capital.

That the withdrawal of a unit of labor from an

industry which yields a monopoly return will result in a greater loss in value-productivity than the withdrawal of a like unit from competitive industry is so self-evident that an apology is due for repeating it here. Does the withdrawal of a unit of labor from an establishment which yields a high competitive ground rent mean a greater loss than the withdrawal of a unit from an establishment yielding a low rent? Does the final unit in extensive culture produce more than the final unit in the forms of intensive culture employed in the same country? This is manifestly not true. Unless there is for some reason a greater dislocation of industry and impairment of the productivity of complementary agency, there is no reason for believing that the final unit—*i. e.*, any unit—employed upon good land is more productive than a similar unit actually employed upon poor land. The final unit of labor in a monopolized industry is more productive than similar units placed elsewhere, and this surplus productivity is the monopoly "rent." We may therefore conclude that there is a fundamental difference between the so-called rent of monopolies and the rent of land.

SEC. 40. Assuming that rent is sufficiently defined as a differential surplus above cost, and that profit is a "marginal" or general surplus, Professor Patten has undertaken to prove that monopoly return is simply the same fund as rent, viewed in a different way.[1] On the basis of the "law of substitution," or competition between different kinds of goods in supplying a given genus of wants, he has developed the conception of a series of monopolies, each one producing at a uniform cost for all its units, while the several monopolies differ from each other in the expense of production,

[1] Patten, Theory of prosperity, p. 80 *et seq.*

the one possessing fewest advantages receiving no surplus gain. The income of these monopolies is in this view a profit, although, when the whole class of monopolies is viewed as a group, it is represented by a differential series. The income of any monopoly, viewed by itself, is marginal or general; viewed as a part of the income of all monopolies, it is differential. For this reason Professor Patten concludes that "rent and [monopoly] profit are one fund viewed in different ways." If we grant for the sake of the argument the existence of a number of monopolies forming a regular series, we still do not lose the distinction between ordinary ground rent and the surplus secured by the more favored monopolies. In those which are most nearly free from competition, land as well as capital and labor will usually be limited artificially. Now there should be no difficulty in distinguishing between that part of the product of the land which depends in no way on monopoly position and which could not be taken away by the freest competition, and that part of the product which exists as a result of artificial limitation, which is secured by one who may not have legal possession of the productive agent to which it is due, and which must disappear with increased freedom of competition.

But there is a more fundamental criticism which may be brought against Professor Patten's position. No profound analysis is required to show that the differentials which figure in this series are quite unlike the differentials which figure in the law of rent. The units of labor, capital, and land in the stronger monopolies are not unlike those in the weaker; they yield a higher return because of their better control of competition. The different "units" of land postulated in the law of

rent are alike only in superficial area—a single one out of numerous economic characteristics.

No satisfactory reason appears to exist for treating monopoly return and rent as like forms of income. Monopoly income is due to artificial limitation which enhances productivity; rent is due to productivity, ultimately dependent upon natural limitation. We shall now consider whether rent bears any close relation to the other dynamic form of income, profit.

SEC. 41. The concrete forms of income which are at present termed profit received no adequate treatment from the classical English economists. In early theory the fact that returns vary temporarily in the various industries was of course perfectly understood, but the special income depending upon such variations was not considered important enough for special treatment. In his analysis of profit, Samuel Read approaches the problem in a way distinctly in advance of the rest of the early English economists. He describes the excess of gain in any industry over and above the ordinary rate of interest as either wages—"reward for labour or industry, or ingenuity, or skill, in the use and application of capital,—or otherwise . . . the result of *fortune or accident*,—that is, of 'secret and unknown causes,' which sometimes occasion greater or less gain in trade, or no gain at all, and sometimes a loss,—and falls properly to be considered as *compensation for risk*." This latter form of gain, since it is regulated by no certain causes, Read declares to be "without the pale of science."[1]

We have here the germ of two of the modern views of profit. That part which Read treats as "wages" is manifestly analogous to the reward for superior capacity

[1] Political Economy, London, 1829, p. 263.

in organization which has been regarded by President Walker[1] and Leroy-Beaulieu[2] as the true source of business profits. That part which he regards as compensation for the risks attendant upon business operations is evidently the form of gain which is held to be typical profits by the modern exponents of the "risk theory of profits." This theory was more fully worked out by Von Thünen, who distinguishes between risks which are sufficiently calculable in their nature to be undertaken by insurance agencies, and risks which are wholly incalculable, such as changes in demand, the appearance of new competing products, and similar contingencies, which no insurance could cover and which the entrepreneur must meet himself. It is the latter form of risks for which profit is a compensation. The same economist points out that since the loss which one suffers when deprived of one's fortune far outweighs the gain secured by a doubling of one's means, no one would be an entrepreneur unless the chances of gain outweighed the chances of loss. Business must, therefore, afford to the undertakers as a class a net profit, after deduction has been made for all losses. This net profit Von Thünen calls "Unternehmergewinn."[3]

This theory has been worked out in more detail by other writers,[4] but in its essential features it remains practically unchanged. At present we have in economic literature two theories of profits besides the above. One of these emphasizes the fact that the entrepreneurs as a class enjoy a monopoly position in society. There may

[1] Walker, The source of business profits, *Quarterly Journal of Economics*, vol. i, p. 275 *et seq.*

[2] Académie des sciences morales et politiques, I, 717 *et seq.*

[3] Der isolirte Staat, II, 81.

[4] Especially Mangoldt and Mr. Hawley. *Cf.* Willett, The economic theory of risk and insurance, p. 50 *et seq.*

be numbers of men in humble positions who are potentially able to carry on great enterprises, but who, through lack of business connections, never receive an opportunity to exercise their powers for management. Those who have the good fortune to be placed in charge of business affairs are for this reason enabled to demand for themselves an unduly large share of the product of industry.[1] This point of view is further developed by those economists who investigate the relative monopoly position of individual groups of entrepreneurs instead of that of entrepreneurs as a class.[2] Capable entrepreneurs may be relatively few in any group or sub-group, to employ Professor Clark's terminology; accordingly they have an advantage in purchase of materials, in employment of capital and labor, and in sale of products, and this advantage gives them an opportunity to secure large profits.

Finally we have a theory of profits which takes its point of view from the facts of an intensely competitive, but dynamic society.[3] A new use is discovered for a commodity, and until capital and labor can be diverted to its production, those who are already on the ground reap a rich harvest. A labor-saving machine is invented, and those who are able to apply it at once make great profits before its use becomes general and prices fall in proportion to the fall in cost of production. Frequently the entrepreneur who makes these gains runs no risk whatsoever. The productiveness of a new machine may be accurately calculated. No particularly high degree

[1] Macvane, The source of business profits, *Quarterly Journal of Economics*, vol. i, p. 1 *et seq.*

[2] Gross, Die Lehre vom Unternehmergewinn, p. 132 *et seq.*

[3] Clark, Distribution as determined by a law of rent, *Quarterly Journal of Economics*, v.

of managing ability is required in its application. Monopoly position, in the sense of a control over competition, need not be assumed. The fortunate entrepreneur may reap a profit while offering no check to increase of output on the part of others, and while bending every effort to increase his own output. Such gains are of course transient at any one point in the industrial field, but they disappear from one industry to reappear in another. Entrepreneurs as a body always receive a flow of income of this nature.

SEC. 42. It does not fall within the province of this paper to consider what view of profits is on the whole the most satisfactory. All that is necessary for present purposes is to present a sufficiently broad view of the fund which is usually treated as profits, in order to consider the relations of that fund to rent. The income of a fortunate and capable entrepreneur will contain (1) a gain due to chance, offset by a smaller loss[1] (borne, however, by some other entrepreneur); (2) a gain due to his own power of combining labor and capital in ways more effective than those usually employed in the community; (3) a certain share in the first fruits of economic improvements; (4) a part of the gains which entrepreneurs as a class secure through the fact that their services are limited in proportion to the demand for them. It is obvious that the second and third element are dependent in large degree upon the fourth. A system of social selection which would discover the business capacities

[1] The mere chance of reward is of course the actual compensation for risk. No compensation is afforded by society for loss. It will be questioned by some whether this form of risk is not really borne by the capitalist. *Cf.* Willett, The economic theory of risk and insurance. If the entrepreneur had no other source of return, it would obviously have to fall on some other factor. As the entrepreneur has other gains, there is no reason why he should not be thought of as bearing part, at least, of these risks.

of members of the working classes would perhaps reduce many forms of entrepreneurs' activity to the rank of free goods; it would disseminate much more quickly the results of economic progress. There would still remain different grades of entrepreneurs, and the better ones would receive a net gain; there would still be temporary gains, though smaller and more widely diffused.

The analogies that are alleged to exist between profit and rent are three in number: (1) that rent and profit are differential incomes; (2) that they represent a net surplus above cost; and (3) that they are a price-determined income. We have already considered at length whether these are the true characteristics of rent; we may now consider how far they are applicable to profits, studying separately, for convenience, each of the elements of the preceding section. It will be necessary, moreover, to examine in detail the economic nature of each of these elements of profit, in order to obtain a definite idea of the relations of profit as a whole to rent.

It is obvious that the amount of dynamic risk varies greatly from industry to industry. If this is correctly understood by those who undertake the risks of directing industry, the return above normal wages and interest will vary in like manner, and thus it is possibe to arrange industries in a differential series, the industries with practically no risk representing the no-surplus units while those in which risks are highest represent the units of maximum surplus. But since a fall in price which would diminish any of these alleged surpluses would at once reduce supply, it appears that the payment for risk forms a part of the necessary costs of production, and therefore has a power to control price. The analogy between this form of income and rent is

therefore very superficial, even from the Ricardian point of view.

But there is a more important reason why it is inadmissible to regard this form of income as analogous to rent. If a unit of capital or labor is withdrawn from combination with land where the so-called surplus which constitutes rent is greatest, the loss in product will not normally be greater than when a unit which shows the least rent-surplus is withdrawn. When a unit of labor or of capital migrates from a combination which yields a high risk-surplus, the loss in product is normally greater than when it is taken from a combination in which the risk-surplus is *nil*. The rent surplus is produced by the land, and continues without appreciable loss when any one unit of complementary agency disappears from the establishment. The risk surplus is produced by the units of labor and capital, and is naturally reduced in proportion when these are withdrawn.[1]

We see, then, that the surplus return in an industry in which risks are high is in important respects similar to the income from a monopoly. Economically it is imputable to the units of productive agency, while in the distribution of product it is secured by the entrepreneur, or, in some cases, by the capitalist who assumes responsibility for risk. It differs, however, from monopoly return in other important respects, since it is necessary if production is to continue, and since it presupposes no price manipulation. The contrast with rent may, perhaps, be brought out more clearly by pointing out the fact that when the return to a branch of production is uncertain, the amount of land employed in it will be limited, just as the quantities of labor and capital in that branch are limited;

[1] *Cf.* Willett, The economic theory of risks and insurance, p. 60 *et seq.*

and when production is successful, the land yields a risk surplus which may be distinguished from rent proper.

SEC. 43. We may next consider that element in the profits of the entrepreneur which results from dynamic changes which the entrepreneur is able to foresee and profit by. When a new method of production reduces the cost of a commodity, even though any one is free to adopt the method, some manufacturers will be in a position to increase their output more rapidly than others, thus receiving a profit during the time when prices are falling. It is evident that in such a case the extension of the new method will usually be retarded by the imperfect mobility of labor and capital. Entrepreneurs may be anxious to increase their product; but so long as the requisite kind of labor is scarce, and so long as a sufficient supply of capital in the necessary form does not find its way into the new branch of production, the productivity of each unit of labor and capital will remain above the normal. The imperfections of the market for productive agency prevent wages and interest in the industry affected by the change from rising in proportion to productivity, and therefore a net gain is left in the hands of the entrepreneur.[1]

The analogy of this form of profit with monopoly return is manifest. It is not a necessary form of income; it is an "exploitative"[2] income, *i. e.*, it is not received

[1] It is obvious that this element in profit is not wholly independent of the one described in the preceding section. The chance that he will find opportunities for certain gains is one of the lures that induce men to assume the uncertain rôle of the entrepreneur. Reflection, however, will show that the two funds are not coextensive; it is therefore permissible to treat them as separate elements.

[2] It may be superfluous to disavow any intention of conveying an ethical implication by the term exploitative. A new product has ap-

by the owners of the agency to which it is economically imputable. But it is temporary in its nature, while monopoly return has a degree of permanence. Moreover, while it is the acts of the monopolist which prevent a greater quantity of productive agency from entering the industry which yields monopoly return, the activities of the entrepreneurs in seeking to secure a share in profits annihilates the latter form of income.

Analogous to monopoly wages, interest, and rent are the abnormal wages, interest, and rent that may sometimes be paid when the competition of entrepreneurs for a temporarily limited supply of productive agency is active. Like the entrepreneurs' profit, this abnormal productive income is temporary. A given unit of labor may be in a position to produce (1) wages equal to the normal rate; (2) a surplus above this sum, analogous to monopoly wages, but transient in its nature; and (3) a further surplus, likewise transient, appropriated by the entrepreneur. A given unit of land may yield a product which may be analyzed into three similar parts. It is not difficult to see the contrast between the sum of those parts of the surplus product of labor, capital, and land, appropriated by the entrepreneur, representing the element in profits now under discussion, and the normal rent of land.

An effort has been made to minimize the differences between this form of profit and rent by proving that rent is a transient form of income. Emphasis is laid upon the fact that changes in consumption may reduce the rent now of one kind of land, now of another.[1] As well might we maintain that wages are a transient in-

peared which competition will sooner or later give to the agents which create it; but until competition has distributed it among the productive factors, it remains in the hands of the entrepreneur.

[1] Patten, Theory of prosperity, p. 79 *et seq.*

come, analogous to profit, because at one time the hand-loom weavers, at another time the hand compositors find their acquired powers losing their control over income.

SEC. 44. In our analysis of profits two elements remain: the extra product created by the skill of the superior entrepreneurs; and the gain which is due to the fact that the social mechanism is defective in developing potential directive capacity, and therefore in endowing entrepreneurs as a class with abnormal advantages. These elements are not distinct, but are mutually interdependent. The entrepreneur may be paid in proportion to his productivity, but productivity is intimately dependent upon limitation. Skilled laborers may be paid in proportion to their productivity, but their productivity might be indefinitely reduced were all the potential capacities of the unskilled laborers to be developed.

The normal productivity of labor, capital, and land must be understood as the productivity of these agents when combined in the most advantageous proportions that are commonly known. Better combinations are always possible, and an individual employer can by his own energy create them. From such improvements arises the income that Walker understands by profits. It is, in his view, the net product of the employer.[1] If Walker's analysis is correct: this form of income differs widely in nature from those mentioned above. If an entrepreneur has made an improvement that can be applied by no one but himself, there would appear to be good reason for saying that he creates the part of the product that exceeds the normal return to labor, capital, and land.

[1] Walker, The source of business profits, *Quarterly Journal of Economics*, vol. i, p. 275.

If the entrepreneurs who have the capacity necessary for applying the same method are few, relatively to the labor and capital that are capable of being organized by them, it would appear to be quite legitimate to say that labor and capital are no more productive than before, the increased productivity being due to entrepreneurs' activity. When, however, so many entrepreneurs are able to use the new method that all of the labor and capital capable of this form of organization are withdrawn from less productive employment, this particular form of entrepreneurs' activity manifestly becomes a good unlimited relatively to the demand for its services, and the productivity formerly attributable to entrepreneurs' activity shifts to labor, capital, and land. The entrepreneur may still receive a part of that product, but in that case his gains will be a profit of the kind discussed in the preceding section.

Manifestly it would be impossible to draw the line between the gain due to a relatively limited form of managing ability, the exploitative gain into which it may transmute itself, and monopoly profit which appears when the possessors of the new method are able to prevent its extension. But the first form of gain is distinguishable in theory, whether it is properly to be classed with profit or not.[1] And it is the relation to rent of this concrete form of income which we have now to consider.

The capacity to apply a method is in many respects analogous to the three forms of productive agency—labor, capital, and land. It yields an income directly imputable to it. It is subject to a law of diminishing returns ; for

[1] Personally I would be inclined to treat it as a special form of wages. It is manifestly created, not by the method,—methods are capable of indefinite reduplication, and are therefore not economic goods,—but by the limited personal activities which apply it.

however great the capacity of an entrepreneur, it would not be humanly possible for him to organize labor and capital indefinitely. To do so he must depute his method to others, *i. e.*, develop like capacities in his subordinates; and when he does this his special form of activity starts on the road toward becoming a free good. The analogy with those forms of productive agency termed monopoly goods in a former chapter is still closer. The income is price-determined, since the method can not ordinarily be shifted from industry to industry in consequence of changes in price. It is estimated residually, since experimental variation in quantity is unthinkable. But it is extremely volatile, since nothing more easily becomes relatively unlimited than the capacity to apply a combination once invented.

Entrepreneurs' activity, in Walker's sense of the term, is the inventing of new combinations in continual succession—the permanent possession of one or another capacity for combination in its relatively limited stage. This originating capacity is manifestly valued as the elements that compose it; the series of capacities for applying new methods is valued from the productivity of each one while limited. The general capacity, however, may have an influence in determining price, since an entrepreneur possessing it may operate in different employments, increasing supply where prices are relatively high, reducing supply where price is low.

If this element in profits has been correctly analyzed, it is the antithesis of rent, not a "species of the same genus." We have seen that it is inadmissible to confuse rent with either of the other elements in profits. Rent is wholly distinct from monopoly gain; it is no less distinct from each part and therefore from the whole of the composite income which is termed profits.

CHAPTER VII.

CONCLUSION.

SEC. 45. An elaborate conclusion would be wholly superfluous in an essay of such modest proportions as this one. Moreover, a position has already been taken upon each controverted point; and if the argument was not sufficient to sustain the position taken, it would be late to supply the deficiency here. However, a restatement of the writer's view-point and a reiteration of a few of the more important points discussed may not be out of place.

The assumptions upon which the argument is based are two. In the first place it is assumed that the distribution of income is the problem of central importance in economics, and that therefore economic phenomena should be grouped and classified with a view to clearing up the problems of distribution. In the second place it is assumed that competition exists as a powerful factor in economic life, and although it is affected in its working by numerous social forces, it holds the position of the most essential economic principle.

This latter assumption will not pass unchallenged in an age when so many thinkers are impressed by economic developments which seem to be the forerunners of a new monopolistic order of society. It is, however, at least plausible that competition is not less active than it was during the early prime of the factory system, although its form has changed. Competition is less keen among industrial establishments which create one and the same kind of commodity; but it is far keener than formerly between industrial groups which create, not

like commodities, but commodities yielding like amounts of satisfaction, from which the consumer selects according to his estimates of utility and cost. It is a noteworthy fact that Professor Patten, who has done more than any other living theoretical writer to convince economists of the wide prevalence of monopoly, stands also as the foremost exponent of the "law of substitution"—competitive law under a new form. The persistence of competition, therefore, is at least a defensible assumption.

Under competitive law there is a tendency for income to identify itself with product. Granting that competition exists among entrepreneurs, it is easy to understand why a unit of productive agency, offering in the market a distinguishable product, should receive that product as its reward. On the further assumption that there is competition among units of industrial agency for the most favored positions in production, it is obvious that the productivity of like units will tend toward equality. The laws of productivity ultimately govern income; and the fundamental classification of incomes, in a competitive society, is the one which is based upon productivity relations.

It is from this point of view that we have classified incomes as productive and exploitative. The former incomes represent wealth which is obtained by the owners of the agents which produce it; the latter incomes represent an element secured by other parties in distribution. The return to a unit of agency is productive if the loss occasioned by its withdrawal is not less than that return; if the loss occasioned by withdrawal is greater, an exploitative income, secured by some other party, is implied.

Exploitative incomes depend upon friction, and fre-

quently exist by virtue of different degrees of resistance to economic laws in different social media. If, for example, competition among workers is active while entrepreneurs do not compete, the latter are in a position to take advantage of any abnormal productivity of labor. If competition of entrepreneurs is checked, and labor is immobile, it is possible that a portion of normal product may be secured by the entrepreneur. Incomes of this kind vary so greatly in permanence and in the laws of their development that they hardly permit of scientific classification. The same thing is true of the element in income due to abnormal productivity which favored industrial units may secure. According as exploitative and abnormal incomes are more or less permanent, they are usually classed as monopoly return or profit. It is doubtful whether a wholly satisfactory analysis of these forms of income is possible in the present state of economic knowledge.

The case is very different with normal productive incomes. A general law of diminishing returns renders possible a scientific explanation of their nature and a description of the laws of their development. Certain dynamic influences affect a wide range of sources of income; and in order to attain to a view of distribution, static and dynamic, it is necessary to group together those incomes which are affected alike by familiar changes, and to contrast those which undergo effects unlike in nature or degree. The dynamic movement which is most fully understood is increase in the productive factors themselves, and it is with this fact in view that we have grouped incomes as they are affected by increase in the factors.

SEC. 46. Land, it is here maintained, is productive in the same sense that labor and capital are productive.

The only test by which the productivity of the latter agents can be determined, the withdrawal or addition of increments, may equally well be applied to land. The productivity of land, in the economic sense, is dependent upon the fact that land yields diminishing returns to successive units of capital and labor applied to it; and in the same way capital is productive, economically, because it yields diminishing returns to successive units of labor and land combined with it in production. The two cases are exactly parallel. What is true of capital is also true of labor, and for this reason a sharp distinction has been drawn between rent, wages, and interest on the one hand, and profit and monopoly return on the other.

Land and capital are therefore alike in this respect; are they, however, identical in nature? It has been admitted that land is capable of increase, and the claim has been advanced that the holding of land involves "abstinence" precisely analogous to the "abstinence" involved in holding permanent capital. It has further been claimed that the annexation of new land—by which is meant not only the reclamation of desert and swamp and forest, but also changes in the effective position of land, due to improved transportation, and changes in the productivity of land which are due, not to additional application of labor and capital, but to new methods—involves abstinence akin to that which is undergone by the man who creates new capital. But the motives which lead to the creation of new capital are not necessarily active in the annexation of new land; the steady frugality which creates a fund of capital is unlike the resolution to join in the search for new homes which is one of the most prominent motives leading to the creation of new economic land. The two sets of

motives are not so closely connected as normally to act simultaneously; and therefore, while capital may be increased in quantity and diminished in productivity, it is not unlikely that economic land will remain relatively stationary in amount and increase in productivity. If land and capital alike remain stationary while labor increases, the effect of the change would no doubt be shared by both alike; and in a society, real or assumed, in which this is the case we should make no distinction between capital and land.

It is quite possible that a time may come when the land at the disposal of society will not be capable of increase, using the term "increase" in the broad sense indicated above. The ultimate limit to increase will, however, be psychical, just as the ultimate limit to increase in capital is psychical, not physical. If that state were already attained, however, it would not alter the problem. The fact of different rates of increase is sufficient in itself to justify difference in classification, since there are important dynamic phenomena which cannot be explained without such difference in treatment.

SEC. 47. Whether rent in itself bears any characteristics that will distinguish it from wages and interest is a question which requires little further discussion. It is a differential income, but in the same sense wages and interest are differentials. It may be computed residually; but this is merely a matter of convenience in theory; except in the case of land which is not capable of alternative uses, and which is not related through margins to other land capable of such uses. There is, however, labor and capital in like position. Residual wages and interest are no more anomalous than residual rent. There may be good reason for making a distinction

between the productive incomes of mobile and immobile agents, but that distinction would not mark off wages and interest from rent. Here again there are conceivable historical conditions which would make rent the type of residual income, but it would be difficult to point out a time when they were actually reälized.

Relation to price has been selected by a great number of economists as the test according to which incomes are to be classified. "Price-determining" and "price-determined" appear to be characteristics of income which are sharply distinct, and they are characteristics that are certainly of cardinal importance in distribution. Incomes in one aspect are shares in price, and are price-determined; in another aspect they are portions of supply, and are therefore price-determining. In a state of imperfect competition, however, there may be incomes which are price-determining in the sense that if they are not paid the agent which claims them will withdraw from further production. Price must therefore be sufficient to cover them. Other incomes may or may not be paid, the agent having no motive to withdraw.

It is obvious that the prevailing motive leading to the withdrawal of a laborer from one industry is the desire to use his powers in another and better paid industry. If prices fall so that normal wages can not be paid, supply soon decreases through the migration of labor. Similarly if capital does not receive a normal reward, it withdraws from the unsatisfactory employment. Mobility is the essential feature in price relations. Now it has been pointed out that land is no less mobile than capital and labor, and therefore rent is an income which determines price. It is admitted that many concrete portions of land have no alternative use, and that in a

qualified sense the return to such land is price-determined. But nothing could be more false than that all units of labor or of capital are mobile. A certain number of units of each agent hold a strategic position, being able to shift from industry to industry; and it is through the action of these that the incomes to the respective factors control price.

Historical conditions determine whether or not rent "enters into price." When the land of a country is almost entirely engaged in producing a single crop, a fall in price can throw land out of cultivation only by cutting down the return to labor and capital and forcing those agents from the land. This, it may be said, is to yield the essential point at issue, for it appears to be an admission that rent does not enter into the price of agricultural produce in its entirety. The small amount of agricultural land which will be turned into building sites could not materially check a fall in price. It may be worth while to point out that in like manner wages and interest would not be elements controlling the price of manufactured products in their entirety. A fall in general prices of manufactures could force into agriculture only a small margin of undifferentiated manufacturing labor and capital. The fallacy of the position lies in the grouping together of phenomena when it is their interrelations that are to be explained. The real price of wheat signifies its relation to beef and wool and corn and vegetables as well as to boots and iron; and all of these various relations must be taken into account if we would explain the laws which govern the rent of wheat land. Taking into account these relations, we can but conclude that in its relation to price rent does not differ from other productive incomes. The laws of dynamic change, then, alone furnish a basis for giving to rent the position of an independent form of income.

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